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PART II

ADDENDA AND ERRATA

Page

- ✓451 for p. 126 read p. 96.
- 200 for pp. 383-384 read p. 301.
- ✓296 first paragraph, line 8, insert in brackets after bridge: This statement, which was made by a pilot (transcript, p. 1425), is clearly incorrect unless other factors which the witness did not mention entered into his calculations.
- ✓327 for Ex. 1427(a) read Ex. 1427(s).
- ✓334 for pp. 115 and 116 read pp. 89 and 90.
- ✓334 second last line SS *Hawaian Craftsman* read SS *Hawaiian Craftsman*
- ✓394 for sec. 328 C.S.A. read sec. 338 C.S.A.
- ✓410 for p. 3(f) para 7 read p. 3 para 7(f).
- ✓415 for Ex. 1457 read Ex. 1451.
- ✓419 - for 1939 read 1959.



*report of the
royal commission
on PILOTAGE*

PART II

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Pacific coast

and Churchill



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CANADA

ROYAL COMMISSION ON PILOTAGE

To His Excellency

THE GOVERNOR GENERAL OF CANADA

May It Please Your Excellency

We, the Commissioners appointed pursuant to Order in Council dated 1st November 1962, P.C. 1962-1575, to inquire into and report upon the problems of marine pilotage in Canada and to make recommendations concerning the matters more specifically set forth in the said Order in Council: Beg to submit the following Report.

/s/ Bernier
CHAIRMAN

Robert K. Smith

H. J. Zemanick

J. W. Hadrian
[Signature]

SECRETARY

October 1, 1968

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INTRODUCTION

Part I of the Report is a study of the present state of pilotage legislation in Canada (Part VI of the Canada Shipping Act) and related By-laws and regulations, and reports on its adequacy or otherwise in the light of existing conditions as disclosed by the evidence. It also recommends the basic changes that should be made in the Act to meet present and foreseeable pilotage situations and requirements.

Parts II, III, IV and V of the Report are complementary to Part I and should be read in conjunction with it. They contain fact finding reports on each Pilotage District, and on other areas where pilotage services are performed. They analyze the nature and extent of existing pilotage requirements in each District and area, as disclosed by the evidence, appraise the adequacy of local pilotage organizations, and recommend, in accordance with the principles enunciated in Part I, certain specific changes affecting pilotage in each District.

Part II mainly concerns the navigable waters on the west coast of Canada, all of which are now contained in the Pilotage Districts of British Columbia and New Westminster. It also includes the only small official pilotage organization in the far northern waters of Canada: the Pilotage District of Churchill. From the information before the Commission, it would appear that at present pilotage services are not required elsewhere in the far northern waters of Canada. If the Commission's General Recommendations contained in Part I are implemented, it will be the responsibility of the Central Authority to ascertain future needs in that region, to assess their importance in the light of future developments and in the public interest, and to ensure the provision of the organizational controls that appear desirable. (Vide Part I, C. 11, General Recommendations 8, 10, 12, 14 and 17).

Part II is presented in three sections, one for each Pilotage District. Each section contains;

- (a) a review of the legislation that applies specifically to the District;

- (b) a list of the briefs submitted for the District and the recommendations they contain;
- (c) a summation of the specific evidence concerning the District, together with the comments of the Commission where necessary;
- (d) the Commission's recommendations that apply specifically to the District;
- (e) the pertinent appendices.

The reader's attention is drawn to the following corrections regarding Part I:

- (a) On page 507, add to paragraph 3 the following cross reference: Re the establishment of the seaward limit of a coastal District, vide Part II, B.C. Recommendation I, pp. 197-198.
- (b) The factual statement regarding the new British Columbia Pension plan on p. 453 is to be corrected as per footnote 19, Part II, p. 192.
- (c) On page 344, third paragraph, secs. 446 and 447, 1934 C.S.A., should be 362 and 363 respectively.

Part II

STUDY OF CANADIAN PILOTAGE
PACIFIC COAST
AND CHURCHILL

Section One

PILOTAGE DISTRICT OF BRITISH COLUMBIA

Chapter A

LEGISLATION

1. LAW AND REGULATIONS

PREAMBLE

Since there are no statutory provisions of exception for the Pilotage District of British Columbia¹, it is wholly governed by the provisions of the Canada Shipping Act which are generally applicable to the pilotage service and its organization. There are, however, a number of Orders in Council, by-laws and regulations that specifically concern this District.

(1) CREATION OF THE DISTRICT (sec. 324 C.S.A.)

The British Columbia Pilotage District was re-established by Order in Council P.C. 493, dated March 22, 1929, which, except for the designation of the Pilotage Authority, has not been amended or rescinded since. The District and its limits are described as follows:

“a Pilotage District to be called the Pilotage District of British Columbia be established, with limits to include all the coastal waters of the Province of British Columbia from the International Boundary between the Dominion of Canada and the United States of America on the South, and the International Boundary between Alaska and the Dominion of Canada on the North, other than the waters of the Pilotage District of New Westminster, British Columbia;”.

(For the legislative description of the New Westminster District, vide Section Two, pp. 243 and ff.)

The eastern half of the Gulf of Georgia south of a line extending from Point Grey west into the Gulf of Georgia to the mid-channel line as far as the United States-Canada boundary is in New Westminster District waters. Therefore:

- (a) Sand Heads² is not situated in the British Columbia Pilotage District.
- (b) Vessels plying between Fraser River ports and Washington State ports or using Rosario Strait do not enter the British Columbia District.

¹ In 1966, the statutory provisions governing the Pilot Fund were amended by the Appropriation Act No. 2, Schedule B, vote 8b of the Department of Transport. For details vide pp. 191 and ff.

² Not *Sandheads* as in the Schedule of the B.C. General By-law.

(2) PILOTAGE AUTHORITY
(secs. 325 and 327 C.S.A.)

Since 1929 when the District was re-established, it has always been under the direction of a one-man Pilotage Authority in the person of the Minister of the pertinent federal department. The latest appointment, dated August 15, 1956 (Order in Council P.C. 1956-1264), makes the Minister of Transport the Pilotage Authority, *inter alia*, of the British Columbia Pilotage District.

(3) COMPULSORY PAYMENT OF PILOTAGE DUES
(sec. 326 C.S.A.)

The Order in Council which re-established the Pilotage District, i.e., Order in Council P.C. 493 dated March 22, 1929, provided that the payment of pilotage dues was not compulsory. This Order in Council has not been rescinded and, in this respect, has not been amended by another Order in Council emanating from the Governor in Council pursuant to the powers conferred upon him under sec. 326 C.S.A.

However, the payment of dues is purportedly made compulsory by the Pilotage Authority itself through a provision in its own District By-law which it enacted pursuant to the powers it derives from sec. 329 C.S.A. It was first enacted April 14, 1949 (P.C. 1618-1959, Ex. 195), as an amendment to the General By-law and has been reproduced since (sec. 6 of the present General By-law).

Such a By-law provision is obviously *ultra vires* and, therefore, of null effect. The fact that the Governor in Council conferred it does not alter the nature of the regulation: it remains a District regulation over which the Governor in Council has no control once it is sanctioned. This situation is incompatible with the provisions of sec. 326 C.S.A. (vide Part I, C. 8, pp. 244-246).

Therefore, the legal situation is that in the District of British Columbia, notwithstanding the provisions of the General By-law, the payment of dues is not compulsory.

(4) ORDERS IN COUNCIL NOT PASSED UNDER CANADA SHIPPING ACT AND
AFFECTING THE ORGANIZATION OF THE PILOTAGE DISTRICT

By Order in Council P.C. 1959-19/1093, dated August 27, 1959 (Ex. 52), revoking an earlier Order in Council to the same effect (Order in Council P.C. 120/422, dated January 25, 1951 (Ex. 52)), the Department of Transport was granted authority with respect to the British Columbia District, to assume, effective April 1, 1959, the cost of pilot stations and pilot boat service, whether owned or hired.

The Order in Council contained a new provision in that, when a pilot boat was hired on a trip basis, it authorized the Department of Transport to charge every ship requiring the service of the boat one-half the actual charge incurred for such hire, the other half being paid out of public funds.

(5) PILOTAGE AUTHORITY'S ENACTMENTS CONFIRMED BY
GOVERNOR IN COUNCIL

(a) *Delegation of Powers under Subsec. 327(2) C.S.A.*

There is no by-law passed by the Minister as Pilotage Authority quoting subsec. 327(2) as authority. The only existing by-laws are contained in the General By-law enacted under sec. 329 and, therefore, whatever delegation of powers there may be were effected pursuant to the powers derived from subsec. 329(p) (vide Part I, C. 8, pp. 289 and ff.).

(b) *Appointment of a Secretary-Treasurer (sec. 328 C.S.A.)*

No Secretary-Treasurer was ever appointed. His duties are discharged by the Regional Superintendent at no cost to the District, as is the case in all other Districts where the Minister is the Authority.

(c) *Authorization for Payment of District Expenses (sec. 328 C.S.A.)*

No Orders in Council were ever passed under this section for this District since its creation in 1929. Operating costs are normally assumed by the Department of Transport as costs of operating pilot stations pursuant to the 1959 Order in Council mentioned above.

The General By-law, however, contains a provision which purports to contain such authorization; subsec. 10(1) states:

"The Superintendent shall pay each month out of the pilotage fund

- (b) the accounts rendered by pilots for expenses incurred in the course of their duties and approved by the Pilots' Committee and the Superintendent;
..."

The Pilotage Authority can not by its own regulations dispense with the necessity of following the requirements of sec. 328 C.S.A. The fact that the By-law was approved by the Governor in Council does not alter the legal situation. The enactment of such a regulation is not within any of the subject-matters of the regulation-making powers of Pilotage Authorities and, hence, is ultra vires (vide Part I, C. 5, p. 110, *Procedural Requirement*).

(d) *Exemption for Small Ships (subsec. 346(c) C.S.A.) and Withdrawal of Exemptions (sec. 347 C.S.A.)*

There is no District regulation quoting subsec. 346(c) and sec. 347 as authority but the question is dealt with in the General By-law passed under sec. 329 (for the effect on the By-law's legality, vide Part I, C. 8, p. 248). No exemption is withdrawn and the exemption for small ships is limited to yachts.

Subsecs. 2(h) and 2(k) of the General By-law of 1960 provided for the indirect exemption of scows by not including them in the definition of "vessel". This provision, which was obviously illegal (vide Part I, C. 7, pp. 218 and ff.), was corrected in the current (1965) General By-law when the definition of scow was omitted as well as the reference to scow in the definition of "vessel".

(6) 1965 GENERAL BY-LAW

All the by-laws enacted by the Pilotage Authority that are still in effect are contained in a General By-law, confirmed by Order in Council P.C. 1965-1084 dated June 10, 1965, and its four amendments up to January 1, 1968, confirmed respectively by Orders in Council P.C. 1966-79 of January 12, 1966, P.C. 1966-980 of May 26, 1966, P.C. 1966-1812 of September 22, 1966, and P.C. 1967-1177 of June 8, 1967 (Ex. 195). The 1965 General By-law replaced the previous one which was enacted in 1960 (P.C. 1960-841) and was amended twice: August 16, 1961 (P.C. 1961-1183) and December 13, 1962 (P.C. 1962-1782).

The basic principles of organization provided in the 1960 General By-law, i.e., the General By-law in force when the Commission began its investigation, are the following (the cross reference to Part I of the Report when it appears at the end of a paragraph indicates where the validity of the matter is dealt with in Part I of the Report):

- (a) Full control of the organization of the pilotage service is exercised by the Authority, the actual management at local level being by the Superintendent (Part I, C. 4, pp. 73 and ff.).
- (b) The pilots are represented by a Pilots' Committee of five elected annually (Part I, C. 4, pp. 82-84).
- (c) Pilots are recruited, through competition, from Master Mariners who have the necessary qualifications and local knowledge; there is no apprenticeship but the successful candidate first serves on probation for one year (as to legality of probation, vide Part I, C. 8, pp. 268-269).
- (d) The number of pilots on strength is controlled administratively by the Authority after consultation with the Pilots' Committee (Part I, C. 8, pp. 255 and ff.).
- (e) Pilotage assignments are made by the Superintendent according to a roster system. Two pilots are despatched jointly for a continuous period in excess of eight hours on voyages to or from a point north of latitude 50° North and in other cases at the discretion of the Authority (Part I, C. 4).
- (f) In addition to sick leave with pay or without pay, one month's annual leave with pay is granted and other leave is at the discretion of the Authority.

- (g) The earnings of the District are pooled (Part I, C. 4, pp. 74 and ff.).
- (h) The remuneration of each pilot is an equal share of the net earnings in the pool, i.e., after deduction of the pension fund contribution, payment of monies belonging to third parties and the expenses incurred by each pilot, the share being based on the time each pilot was available for work (Part I, C. 8, p. 249).
- (i) The basic dues are composed of two elements: a first charge for entering or leaving a port computed on the gross tonnage and the draught of the vessel, and a second charge based on mileage travelled in District waters.
- (j) The compulsory contribution to the pension fund is fixed by the Authority after consultation with the Pilots' Committee; the By-law also sets out the terms and conditions of the benefits.
- (k) Two permanent boarding stations are provided: off Brothie Ledge near Victoria and off Triple Island near Prince Rupert, provision being made for the authorization of additional boarding places to meet all requirements.
- (l) The Master or agent of a vessel is required to supply an E.T.A. in sufficient time to enable a pilot to meet the vessel.

The principal changes effected by the 1965 General By-law (P.C. 1965-1084), which repealed and replaced the 1960 General By-law, and by its amendments are the following:

- (a) The definition of the word "scow" was omitted, as was the reference to it in the definition of "vessel" (Part I, C. 7, pp. 218-220).
- (b) The indemnities payable to the pilots under secs. 359 and 360 C.S.A. form part of the pilotage fund, and part of the net earnings which are shared among the pilots (Part I, C. 5, pp. 105-106).
- (c) Two prerequisites for pilot candidates are added: the required certificate of competency must be endorsed for radar simulator, and British Columbia coastal experience must have been gained aboard a Canadian vessel.
- (d) The rules for the joint assignment of two pilots are transferred from the Schedule to the By-law itself.
- (e) A procedure is provided for dealing with violations of the By-law: an inquiry is to be held by a person appointed by the Authority; if the inquiry indicates that the charge is founded, the Authority is authorized to impose a penalty not exceeding \$200, suspension or withdrawal of licence; the pilot involved has the alternative to be dealt with by the Superintendent, the penalty in such a case not to exceed \$100 (Part I, C. 9, p. 400).

- (f) The annual leave is increased to 60 days, i.e., 5 days for each month served, during which period of absence the pilot is considered an active pilot for the purpose of distribution of earnings.
- (g) The reference to Sand Heads as a port is deleted. The basic dues are now payable not only on a port basis (i.e., each time the vessel proceeds in or out of the port) but also when proceeding to or out of the Fraser River and for a transit without calling at any District port.
- (h) The pilots' remuneration for boarding or disembarking outside the District is determined by agreement between the Authority and, as in the Puget Sound case, becomes part of the pool.
- (i) A charge of \$1.75 per ship is imposed as pilotage dues to pay for the cost of the portable radiotelephone equipment the pilots are provided with (amendment P.C. 1966-79) (Part I, C. 6, pp. 183-184).
- (j) The pension fund provisions are amended to reflect the transfer of the assets and administration of the fund from the Government to the Corporation of the British Columbia Coast Pilots (vide pp. 189 and ff. and Part I, C. 10, p. 453).

2. HISTORY OF LEGISLATION

PREAMBLE

In order to understand the early history of pilotage in what is now the Province of British Columbia, it should be remembered that there were originally two separate colonies: the Colony of Vancouver Island, established in 1849, and the mainland Colony of British Columbia, established in 1858. In 1866, the two were united into a single Colony which became the Province of British Columbia when it joined Confederation in 1871.

(1) COLONY OF VANCOUVER ISLAND

In the early days of the Colony, it appears that pilotage was left a responsibility of the authority of each port, which appointed its own pilots and fixed pilotage rates. It seems that the first of such pilots were appointed for the harbour of Victoria in March, 1859. However, in the absence of pilotage legislation, there was no means to compel a vessel to take a pilot, nor even to authorize an appointed pilot to supersede other persons acting as pilots. The situation was far from satisfactory and there is little doubt that the resultant complaints caused the enactment of the first local pilotage legislation in 1864.

On April 9, 1859, the Victoria newspaper, *The Gazette*, complained: "Pilots have been appointed for this harbour, but of what use are they when boatmen and men living on shore are in the daily habit of bringing vessels in, and almost invariably getting them on shore. Every vessel which runs aground in this port is a real injury to it."

In 1860, the pilots of Victoria and Esquimalt petitioned for an increase in pilotage dues because they could not live on existing rates. They undertook to keep a suitable vessel cruising outside Race Rocks. They also complained they had no legal status and that any person, licensed or not, was allowed to pilot a vessel into port. A bill covering these points was introduced in 1862 and led to the "Victoria Pilot Act of 1864" which applied only to the harbour of Victoria. It appears to be the first pilotage legislation in the Colony of Vancouver Island. The Act provided for a Board of Commissioners to examine pilots and grant licences; set the pilotage rates; required the pilots to maintain a suitable boat and to keep it cruising at all times, weather permitting, between Victoria and the entrance to Sooke Harbour; stipulated that unlicensed pilots had to make way for licensed pilots; and prescribed that inward-bound vessels which were spoken to by a pilot and refused his services should pay half pilotage dues. Exemptions were provided for ships owned in the Colony and engaged in coastal trade, in trade with British Columbia or in fishing; for ships under 100 tons registered in any of the British Dominions or in the territory of Washington; and for Her Majesty's Ships.

In 1866, the pilots appointed for Victoria Harbour were granted a licence under the new Act. However, the Act did not prove a success. In order to meet their obligation to provide a suitable boat and to keep it cruising constantly, weather permitting, the pilots had hired a schooner in 1864, pending the construction of one of their own, but the following year they dismissed the schooner and reverted to their former custom of employing a whaleboat manned by the Indians. From it they boarded any vessel that could be observed from the look-out above Hospital Point. The pilots gave as their reason that their remuneration did not pay for the schooner and added that, unless the Government provided a vessel, they could not possibly operate a schooner in the future.

The Victoria Pilot Act failed because it did not provide enough revenue to pay the pilots and it was suggested that the pilots should be paid by the Government. This was the situation when the Colony of Vancouver Island united with the Colony of British Columbia in 1866.

(2) COLONY OF BRITISH COLUMBIA

On the mainland, a Governor's proclamation dated June 15, 1859, established Queensborough (New Westminster) as a Port of Entry for the Colony of British Columbia, no vessels were exempt and pilotage fees were based on draught.

There was dissatisfaction among the merchants and shipowners about the pilotage charges for small craft. On the other hand, there were not at that time enough large vessels to provide a reasonable income for the pilots and it was recommended that their salary be paid by the Government. As a result of these complaints, a second proclamation dated May 9, 1861, called the Pilotage Act of 1861, repealed that section of the 1859 proclamation which "renders the payment of half pilotage compulsory on vessels drawing less than seven feet of water".

It was not until 1865 that pilots were granted a salary by the Government but this lasted for only a short time because the Government made other arrangements for piloting vessels to New Westminster. In view of the Colony's financial position, it was felt that these salaries could not be justified and that pilotage duties could be performed equally well by the Master of the lightship at Sand Heads or by the Harbour Master, in case of emergency.

After the Legislative Council of British Columbia was established in 1864, the first legislation concerning pilotage was Ordinance No. 15 of 1866 entitled the *Pilotage Ordinance 1866*. It related only to pilotage in the mainland part of the colony; it repealed those parts of the two proclamations which related to pilots and gave the Governor in Council power to appoint and to alter Pilot Boards, and to make rules, regulations and by-laws which were to be published in the *Government Gazette*. Under this authority, a Pilot Board was established in June, 1866.

(3) UNION OF THE TWO COLONIES

After the Union on November 19, 1866, it was necessary to assimilate the laws of the two colonies. The Legislative Council of British Columbia passed Ordinance No. 30 dated April 2, 1867, entitled "The Pilotage Ordinance, 1867" and described as "An Ordinance to Assimilate the Laws for the Regulations of Pilotage in all parts of the Colony of British Columbia". This repealed both the 1866 Pilotage Ordinance of the Colony of British Columbia and the "Victoria Pilot Act 1864" of the former Colony of Vancouver Island. Its provisions were almost a repetition of those of the 1866 Pilotage Ordinance.

The first by-laws were published in the *Government Gazette* of November 2, 1867, and shortly thereafter three pilots were examined and appointed. But this did not improve the situation of the pilots. On February 8, 1869, the Select Committee on Pilotage presented directly to the legislature its report in which it recommended that the then existing pilotage system be abandoned, that pilots should in future be salaried officers of the Government, that pilotage fees be merely nominal, etc.

This report was not acted upon, except for some alterations in the rules and orders published in 1867, and the Pilot Board continued to operate right into the post-Confederation period. In December 1874, the Pilot Board resigned as a body.

In addition to the licensed pilots, there was another group who were the holders of special licences. In order to avoid pilotage dues, companies—such as the Hudson's Bay Co. and the Vancouver Coal Co.—had the Masters of their vessels examined and licensed as pilots for the ships of their companies.

(4) CONFEDERATION

The Colony of British Columbia joined Confederation July 20, 1871.

Until well after this date, pilotage in the Province of British Columbia continued to operate under "The Pilotage Ordinance 1867". On May 23, 1873, the Dominion Government passed "An Act Respecting Pilotage", 36 Vic. c. 54, cited as "The Pilotage Act 1873". Under this Act, every local Pilotage Authority was to retain its powers until they were abrogated by Order in Council. It was not until May 5, 1875, that an Order in Council established under the new Act a Pilotage District which included "the entire Coast of British Columbia with its Rivers and Harbours", extending "from the Shores of Washington Territory to the Northern Boundary of the Province", and appointed five British Columbia citizens to constitute the Pilotage Authority (four of whom had been members of the former Pilot Board) and made the payment of pilotage dues compulsory.

On February 19, 1877, the first By-law of the Pilotage Authority was approved. It provided, *inter alia*, that, in addition to general licences, pilotage certificates could be secured by Masters and mates of vessels regularly plying in B.C. waters, or steamers sailing between Victoria and any port in Puget Sound not less than once a week. Applicants were to pass an examination and pay a yearly fee of \$100. Each regular pilot had to own a share of at least three tons in a registered pilot boat, and each pilot boat was to carry one or more apprentices to serve on board for four years, in addition to an actual six months in a square-rigged vessel.

By different Orders in Council, the District was successively divided into a number of separate Districts: Yale and New Westminster District, 1879; a separate District for Nanaimo and other individual ports, 1879; the District of Victoria and Esquimalt, 1880; Vancouver Pilotage District, formed by the separation of Yale and New Westminster, 1904 (for Order in Council numbers and dates, vide Report, Part I, *Appendix II*).

It is of interest to note that, following complaints received as a result of a request by the Minister of Marine and Fisheries, a public inquiry was held into the administration of the Victoria and Esquimalt Pilotage District. The Commission of Inquiry was appointed by Order in Council P.C. 1830

dated September 28, 1904 (Ex. 1493(c)). The subject of the investigation was the alleged mishandling of pilotage money and the investigation took the form of an audit (vide Sessional Papers).

By-laws for the Vancouver District published in February 1907 provided, *inter alia*, that, in addition to regular licences, pilotage certificates could be granted to Masters or mates of Canadian ships regularly sailing in the District after an examination and a \$300 fee which had to be renewed annually. The pilots had to own and maintain the pilot boats, and the dues were calculated on draught and net registered tonnage. The pilots were to receive assignments in turn and could not move or berth a ship in the harbour as this was within the jurisdiction of the Harbour Master.

In 1910, the number of Commissioners for the Pilotage District of Vancouver was increased from three to five.

In the Vancouver District, each pilot was a shareholder in a joint ownership of the launches, pilot stations, office furniture and other equipment. They were divided into four classes: first, second, third and probationary. Each group was paid salaries and travelling expenses. The profits were apportioned according to rank. The pilots took their turn with all ships, except mail steamers which were handled by first class pilots.

(5) ROBB COMMISSION

During World War I, dissatisfaction with the service was manifested. In particular, the shipping interests objected to the compulsory payment of pilotage dues. In 1918, a three-member Commission, under the chairmanship of Thomas Robb, was "appointed to inquire into and Report upon the conditions in the Pilotage Districts of Vancouver, Victoria, Nanaimo and New Westminster, and to recommend, if necessary, any changes found desirable therein".

The Commission concurred in the shipping interests' representations that costs were excessive and, in its report dated November 6, 1918, recommended that this situation be corrected, *inter alia*, by the following means (Ex. 1327):

- (a) the amalgamation of the Vancouver, Victoria and Nanaimo Districts under the Minister of Marine and Fisheries as Pilotage Authority who would be represented locally by a Superintendent, assisted by an Advisory Committee composed of one member from each Board of Trade of Vancouver, Victoria and Nanaimo, and one representative of the pilots; the New Westminster District to be left as it was on account of its exceptional situation governed by local conditions which did not affect the other Districts;
- (b) the number of pilots to be reduced to fifteen, those over 70 years of age being compulsorily retired;

- (c) the pilots' earnings not to be pooled but the pilots placed on salary, since salaries could be adjusted to meet local requirements; each pilot to receive an annual salary of \$3,000 instead of the average at that time of Vancouver, \$4,961.83; Victoria, \$4,514.39; and Nanaimo, \$3,457.10;
- (d) a new set of tariffs based on draught only, substantially lower than those then existing and designed to provide the above-mentioned salary, as well as to cover the expenses of the District, which were expected to be substantially reduced as a result of the amalgamation;
- (e) a pilots' pension fund to be created and a deduction of 7 per cent of the gross earnings provided for this purpose;
- (f) the payment of pilotage dues to be compulsory in the Gulf (Strait) of Georgia and dues computed on draught only (Recommendation 27);
- (g) with reference to apprenticeship, the report stated:

"It is plainly evident that there is no necessity of maintaining an apprenticeship system on this coast, as there are no doubt many of the local navigators who are eligible to become pilots whenever vacancies occur in the ranks".

In the previous paragraph, it had said:

"It seems that the navigators on this coast look forward to admission to the pilotage service in the light of promotion from the coasting services . . .".

(6) AMALGAMATION OF THE PILOTAGE DISTRICTS

By Order in Council P.C. 1876 of September 10, 1919 (Ex. 1165), all the British Columbia Districts, with the exception of the New Westminster District, were amalgamated under the Minister of Marine and Fisheries as Pilotage Authority and the payment of dues remained compulsory. The other recommendations were not implemented because some six months later, by Order in Council dated April 26, 1920, the British Columbia Pilotage District was abolished, leaving no publicly controlled organized pilotage except the New Westminster Pilotage District.

The Order in Council stated:

". . . the superintendent general of pilotage has recommended that under the circumstances obtaining at present in said district, it would be in the interest of navigation and of the public generally that the said pilotage district be abolished . . ."

It appears from contemporary newspaper articles that this drastic action was brought about by the Authority's attempt to implement the other recommendations of the report.

After Order in Council P.C. 1876 of September 10, 1919, there was a new By-law, dated December 20, 1919 (Ex. 195), published in the *Canada*

Gazette of December 27, 1919, effective January 1, 1920 (Ex. 1165), which provided, in accordance with the recommendations of the Robb Report:

- (a) pilots to be compulsorily retired at 70 and their licences subject to annual renewal on proof of fitness between the ages of 65 and 70 (sec. 13);
- (b) temporary licences in cases of emergency (sec. 14);
- (c) a Pilots' Committee of three (sec. 15);
- (d) authority for the Superintendent to suspend pilots for one week in eight enumerated cases of discipline, absence or safety (sec. 22);
- (e) Superintendent obliged to report all suspensions to the Minister who could add a further suspension (sec. 23);
- (f) the Collector of Customs to collect pilotage dues on inward voyages (sec. 24);
- (g) a maximum remuneration of \$325 per pilot per month (but no minimum) derived from sharing the net revenue of the District after all District expenses had been paid (sec. 25);
- (h) boarding and disembarking outside the District limits permitted if the pilots' transportation and living expenses were paid in addition to the pilotage dues (note following sec. 28);
- (i) a system of multiple pilotage dues, namely, basic dues of \$2.00 per foot draught and 1¢ per net registered ton for entering or leaving a port from Brothie Ledge as far as Union Bay or Comox (with the exception of Victoria and Esquimalt, where the dues were 50¢ per foot draught and ½¢ per net registered ton) and \$1.00 per foot draught and 1¢ per net registered ton for entering second or subsequent ports on the same voyage (sec. 26);
- (j) smaller charges for ships registered elsewhere than in Canada and engaged in coastal trade between British Columbia and Pacific ports of the United States, including Alaska (sec. 27);
- (k) for voyages north of Comox or to the west coast of Vancouver Island, an additional charge of \$30 a day (sec. 28);
- (l) scows to be exempt (sec. 26).

(7) ABOLITION OF THE DISTRICT

The pilots disagreed with the recommendations of the Royal Commission as to their remuneration and requested a minimum guaranteed salary of \$325 per month while the shipping interests recommended \$250. The pilots also objected to the compensation offered by the Government for their equipment, qualifying the offer as confiscation. At first, they threatened to strike but later intimated that, unless the Government's stand was changed as of January 1, 1920, they would act in an independent capacity at the old pilotage rates. This they did for some weeks.

On January 26, a basis of settlement was reached: the pilots were to work under the new regulations on a fixed salary of \$325 per month for a trial period of sixty days, at the expiration of which the situation would be reviewed. With regard to the pilots' equipment, the Government agreed to take over three launches and other gear was to be accepted at a valuation. The agreement could be broken by either side after a month's notice. Under the 70-year age limit clause, two pilots were forcibly retired from active sea service.

At the expiration of the trial period, the pilots again requested more money in the form of larger remuneration plus more travelling expenses. These requests were considered unreasonable at the time and the decision was taken to abolish the District. In March, Capt. B. L. Johnson, the local Superintendent of Pilotage, resigned and by Order in Council P.C. 898 of April 26, 1920, effective May 6, 1920, the District was abolished.

From that time on, except for the New Westminster District where organized pilotage under Government control continued, pilotage in British Columbia waters was conducted as a free enterprise, free from any Government control. The result was that any individual who wished could practise pilotage without examination or licence.

The pilots then established the British Columbia Pilotage Association with an Executive and maintained what appeared to be an efficient service. Vancouver Pilots Limited was formed in 1921 and began operating the following year. In 1923-1924, some members of the British Columbia Pilotage Association broke away and set up Independent Pilots Limited. Thus, at the end of 1925, there were three groups performing pilotage in the former British Columbia Pilotage District.

From 1920 on, a body of Masters and ship's officers, known as the Canadian Merchant Service Guild, tried to amalgamate the pilotage organizations. In 1926, a large percentage of the pilots formed themselves into an association known as Federal Pilots Limited of British Columbia, which absorbed the British Columbia Pilotage Association, Vancouver Pilots Limited, and Independent Pilots Limited.

Those pilots who declined to join the new association formed a second group called Canadian Pilots Limited.

A few pilots, however, including those in company employ, remained unattached, independent of any organization or supervision.

During this period, no pilot required a licence to carry out pilotage duties.

(8) MORRISON COMMISSION

The resultant confusion made it necessary for the Federal Government to intervene by appointing another Royal Commission on August 16, 1927. The sole Commissioner, Chief Justice Aulay Morrison, submitted his report December 20, 1928 (Ex. 1329).

The consensus of opinion expressed by those who appeared before the Commission was that the existing state of affairs should end.

"Various proposals have been formulated and submitted. As to some of these there was unanimity; such as the examination of pilots; the appointment of some central authority, the division of opinion as to the constitution of which is marked."

"As to those points upon which differences of opinion were expressed, emerging from the mass of controversial submissions, there are two outstanding questions which are susceptible of effectual termination and which should be dealt with speedily, viz., that of *Compulsory Pilotage* and that of *Choice Pilots*, with which is allied that of *Pooling*."

The Commission noted that the shipping companies "may be taken by and large to be afraid of compulsory pilotage for various alleged reasons", i.e., red tape regulations of government-operated services, control of Pilotage Board by political appointees and the loss of the privilege of engaging Choice Pilots.

Concerning the free pilotage system that then existed, the Commissioner states:

"Keen competition has developed entailing unnecessary expense for the defraying of which provision must be made in the pilotage rates. Some of the shipping companies, taking advantage fairly enough of this situation, have men on regular salary acting as pilots, but when these companies get exceptionally busy, as often happens, they have to call for assistance on one of the group of pilots who go to the expense of maintaining a regular service and equipment."

With regard to the necessity for a pilotage service, the Commission noted:

"The comment on this is that compulsory pilotage so-called practically exists at the present time. No prudent shipowner will deny his captain the privilege of engaging the services of a pilot. Sometimes in clear weather a ship's Captain will bring his vessel right into the harbour of Vancouver without a pilot, not with the intention of saving his owners the expense. To prevent his owners complaining against other captains of the same fleet for taking pilots in clear weather, he may agree that the full pilotage be paid provided it is split with him or perhaps for him to get the larger share. Whatever reasons may be urged in favour of compulsory pilotage where the pilots are not all getting practically the whole of the work available, such a system can afford little if any additional benefit in places where they are fully employed."

And, quoting from the Departmental Report on Pilotage in the United Kingdom, 1911:

"To prevent risks being improperly run and to induce the maintenance of an adequate service of pilots, it is, in my opinion, both in the interest of the State and of shipowners masters, pilots, and others, that pilotage should be made compulsory in every port where a pilotage system is reasonably necessary."

He added that even although the various systems in vogue may have worked satisfactorily in the sense that they tended to develop an efficient permanent service, yet there is need from time to time to adjust and readjust any system to the exigencies of the times. There are more factors to the problem than either the pilots or the shipping interests because there are other business and public interests.

As to the necessity for pilotage, he found that in British Columbia not security but speed was the main reason for the maintenance of a pilotage service:

"The leading shipping interests resorting to these waters employ experienced navigators, and were not in some cases the element of 'making time' considered, impelling them to make port expeditiously, they all could readily dispense with the services of pilots. Prudence and the demands of marine insurance companies, however, dictate the necessity for their employment. Hence the necessity for their existence and for pilotage to be placed upon a workable and properly organized basis."

He favoured the special pilot system, locally called "Choice Pilots", provided steps were taken to check the main drawbacks to the system which are twofold: firstly, inequality in the earnings of the pilots, and, secondly, an objectionable amount of patronage and even corruption develops when a Choice Pilot, having more work than he can do himself, may exercise his influence to obtain the surplus work for other pilots. He suggested that the Choice Pilots' earnings, as in the case of the Liverpool Pilotage Authority, should not go to the individual concerned but should be placed in a common fund with all other pilots' earnings to be divided in equal proportions, according to class. A shipowner with an assigned pilot would guarantee that his annual pilotage earnings would reach a certain amount, and would make good any deficiency at the end of the year. He reasserted the principle that pilotage rates are intended not for the remuneration of the pilots alone, but for the maintenance of the pilotage system.

As for pooling, he noted that:

"It has been objected to this system that the division of earnings amongst all the pilots would lower the pay of the most capable and experienced ones to the level of the less industrious and experienced, thus tending to lower the standard of efficiency and check healthy competition",

but, on the other hand, he noted that, under the free enterprise system that existed in B.C., the largest of the efficient pilotage groups had voluntarily adopted it and apparently it satisfied both the pilots and the pilotage service generally. He added that the evidence before him was mainly against free competition in pilotage because competition caused unnecessary expense and led to inefficiency.

He then recommended that the number of pilots be limited and that their earnings be pooled with the understanding that it would not be expected that there would be an equal pooling of income, nor should Choice or Special Pilots expect to take the whole of their earnings. He further recommended that the Pilotage District of British Columbia be again brought into existence so that only licensed pilots would be permitted to operate in the District under the control of a Superintendent appointed and paid by the Department of Transport, but on a non-compulsory basis.

With regard to Prince Rupert, he recommended that a special District be created:

"Prince Rupert does not appear to have been mentioned in this old district. From about 1910 on Prince Rupert waters were served by pilots from the southern ports. Now that Prince Rupert, the Portland canal ports and that of Queen Charlotte islands have become of importance in the trade routes of the Pacific, a new district should be established which should be known as the Prince Rupert District, including the above-named ports and extending south as far as Queen Charlotte sound."

As to the system of inquiry into marine casualties, which had been criticized before him, he made only cursory remarks, as he felt this subject was beyond the scope of his mandate. He felt that the Wreck Commissioner system was reasonably adequate and that the criticisms were directed more against the Deputy Wreck Commissioner than against the system.

(9) RE-ESTABLISHMENT OF THE DISTRICT

Following the Morrison report, by Order in Council P.C. 493 dated March 22, 1929 (Ex. 1143), the British Columbia Pilotage District was reinstated with its old limits, i.e., all the coastal waters of the Province of British Columbia other than those of the Pilotage District of New Westminster, under the Minister of Marine and Fisheries as Pilotage Authority, and the payment of pilotage dues was not made compulsory. However, the recommendation that Prince Rupert be made a separate District was not acted upon. New by-laws published on October 30, 1929, provided, *inter alia*, for annual leave not to exceed thirty days and the establishment of two boarding stations off Victoria and Prince Rupert.

In 1933, when the Department of Marine and Fisheries was divided, the Minister of Marine became the Pilotage Authority and was replaced as such by the Minister of Transport when the Department of Transport was created in 1936.

The pilotage dues were reduced in 1932 by 15 per cent and again by 5 per cent; during the War, a surcharge of 25 per cent was added and some readjustments made; in 1947, by P.C. 1949, new rates were set and a charge for pilot boats was added.

(10) SLOCOMBE SURVEY

In 1947, Capt. F. S. Slocombe, an officer of the Department of Transport, made a survey of the special features of the most important Pilotage Districts. Some pertinent points made in his report on the British Columbia District (Ex. 1452):

(a) *Nature of the District*

"The District of British Columbia is different from any other district in Canada, as it includes both harbour and coast pilotage. There are fifty possible

approaches to docks in Vancouver Harbour, eighteen on the mainland north of Vancouver, forty-three on Vancouver Island and five in the Queen Charlottes, in addition to inlets where ships may be required to load small parcels of cedar poles."

"It is necessary for the pilots to have a thorough knowledge of tidal currents throughout the whole district. These currents are so strong in some of the narrow channels, such as in the Seymour Narrows, where the notorious Ripple Rock is situated [since removed], that the ordinary ship cannot stem them and must wait for a favourable tide."

"The main feature is the gorge-like nature of the channels, in which, on a dark night, the steep sides merge into the shadows and reflections in complete absence of light. Along these channels ships must pass within two or three hundred feet of the shore, with deep water below. Anchorages are few and far between."

"Another feature of the district is the frequency of fog."

(b) *Conditions of Service*

"There are at present 32 pilots, all permanent. Of these, 20 are stationed at Vancouver, 10 at Victoria and 2 at Nanaimo. The District is divided into zones, and a few of the older pilots are restricted to certain of these zones."

"The bulk of the pilotage is between Victoria and Vancouver, and the average time spent on such a job is 14 or 15 hours."

"The 20 pilots stationed at Vancouver generally perform only outgoing pilotages and movages, and trips north, but if required by pressure of incoming traffic they may bring in a ship from Victoria as well."

"The pilots live at home, but are always on call. At present the average number of jobs per month is from 10 to 12 per pilot. It was estimated by the pilots that when the necessary sleep is taken into consideration each job requires about 36 hours."

(c) *Pilots' Remuneration*

"With the outbreak of war shipping on the British Columbia coast diminished in volume, and the individual pilot's earnings, after superannuation contribution had been made dropped rapidly from \$5,311.80 in 1938-39 to \$3,858.45 in 1940-41. In 1941-42, in spite of a surcharge of 25% which was added to the rates by Order-in-Council in December 1941, each pilot received only \$1,725.25. This surcharge remained in effect until 1946, and combined with some extra revenue derived from piloting American ships to Alaska to raise the individual pilot's net earnings to \$3,962.12 in 1942-43, \$3,918.82 in 1943-44, \$4,589.00 in 1944-45 and \$5,204.00 in 1945-46. On May 15th, 1946, the surcharge was reduced to 15%, which with the seasonal reduction in shipping resulted in a considerable falling-off in the earnings. The average net earnings of the pilots from June to September inclusive amounted to \$313. per month. Then on October 15th the full 25% surcharge was reinstated, this helping to raise the monthly payments to the pilots to \$475. in October, \$482. in November, \$525. in December."

(d) *Pilotage Dues*

"It is common for a ship to go to Vancouver to unload, then to call at several ports north of Vancouver to load and in such case, as might be expected, a large pilotage bill may accrue."

"There are no special rates for the ships of any particular company and there is no clause providing for detention payment when a pilot may be ordered to a ship in Vancouver and may then be delayed several hours before the ship moves or until the pilot is released."

(e) *Representations by the Pilots*

The pilots made several representations to him and, *inter alia*, requested that

- (i) a detention charge, which had been overlooked, be instituted because there was much abuse involving the necessity of keeping a larger roster of pilots than would normally be necessary;
- (ii) compulsory payment of pilotage dues be instituted on vessels over 250 tons net register, with exemptions as provided in the Canada Shipping Act;
- (iii) the Special Pilots' system which had fallen into almost complete abeyance since the beginning of the War, be not re-established unless a surcharge of 10 per cent be made for the pilotage fund, in order to defray the added expenses that such a system entailed.

(f) *Pay and Qualifications of Pilots*

It was contended that the status of a pilot financially should be better than that of Master because of the intricate nature of the pilotage involved and the extent of the District. To this the shipping interests agreed for, otherwise, the best men would not be attracted into the pilotage service.

As to the qualifications of the pilots, the shipping interests were reluctant to entrust their ships to the care of pilots who had commanded only tug-boats.

(g) *United States Pilots*

Capt. Slocombe's report covers also the situation and status of the American pilots at Puget Sound, who then numbered thirty-one, operating under a Board of five Pilotage Commissioners appointed by the Governor of the State of Washington, two of them being active pilots, two actively engaged in the ownership side of deep-sea ships and the Chairman, the State Director of Labour and Industries.

Their peacetime remuneration was about \$800 to \$900 per month: the average job took from six to nine hours and each pilot had an average of five ships per month, in addition to movages. There was no pension scheme.

(h) *Financial Appendix*

In the Appendix to the report there are samples of pilotage bills, a brief analysis of the bills showing the history of rates from 1929 to the consolidation of 1945, and a statement showing the District's revenues and remuneration of pilots year by year, between 1935-36 and 1945-46 inclusive. It appears from this report that it was the practice to have any contemplated change in the tariffs, status of pilots, or conditions of the service discussed and negotiated on a local basis by the interested parties before any action was taken by the Authority.

After Capt. Slocombe's report had been received, by an amendment to the District By-laws confirmed by Order in Council P.C. 1618 of April 14, 1949, the compulsory payment of the dues was purportedly imposed, the rate structure was basically modified and the tariff was revised upward.

(11) AUDETTE COMMITTEE

As a result of representations made to the Government by shipowners and by pilots regarding pilotage matters generally and their effect on shipping and the movement of ships in seven Pilotage Districts including British Columbia where the Minister was the Pilotage Authority, a Committee under the chairmanship of Mr. L. C. Audette was appointed by Order in Council P.C. 3978 dated August 10, 1949 (Ex. 1330).

The only specific recommendation for British Columbia was with regard to the Board of Examiners and was to the effect that the examination of candidates on local knowledge should be made by the pilot members of the Board in the presence of the remainder of the Board.

The general recommendations that were applicable to British Columbia were, *inter alia*:

- (a) *Pilot vessels*: the Government to assume the full cost of acquisition, operation, maintenance and replacement of pilot vessels as was already done in some Districts;
- (b) *Pilot stations*: same recommendation;
- (c) *Guarantee of minimum earnings*: the proposal was urged by Pilots' Committees that a minimum income of not less than \$4,800 per annum be guaranteed. The Audette Committee recommended against the proposal by a majority decision, the two pilot members dissenting. The majority felt that the principle of a guarantee of minimum earnings by the Government for one group of persons was socially, politically and economically unsound and that such an undertaking already given in some Districts should be reconsidered and discontinued;
- (d) *Pension Fund*: the amalgamation under Government control of the various pension schemes then in existence and the Government to make good the deficit of approximately \$1,500,000 in the amalgamated funds (vide Report, Part I, C. 10).
- (e) *Pilotage tariffs*: in nearly all Districts, the Pilots' Committees suggested a modification of tariff by the imposition of a separate charge for berthing and unberthing. By a majority decision, the Audette Committee recommended against the proposal because it viewed the contract between the pilot and the shipowner as one covering a variety of services and involving various types of advice which led to the safe conduct of ships from boarding stations to

final destinations. The pilots' proposal involved breaking the contract down into one or more of its elements. Therefore, making a specific charge would, in their opinion, destroy the fundamental idea of general advice tending to ensure a safe journey. They felt that this newly advocated principle was only a means to increase the pilots' revenues. The Audette Committee considered desirable the establishment of a uniform basis for the computation of dues for all Districts but they were unable to reach agreement.

(12) LEGISLATION SINCE THE AUDETTE REPORT

Following the Audette Report of November 29, 1949, by Order in Council P.C. 120-422, dated January 25, 1951 (Ex. 52), authority was given to the Crown to assume, effective April 1, 1950, the cost of pilot stations and, effective July 1, 1950, the cost of pilot boat service, and to reimburse the Pilotage Districts for the cost of operation of the pilot boats. This Order in Council which applied to four Districts where the Minister of Transport was the Pilotage Authority, of which British Columbia was one, was later replaced by Order in Council P.C. 1959-19/1093 dated August 27, 1959 (Ex. 52), to the same effect. The other main recommendations of the Audette Report were not acted upon.

The Department of Transport did not effectively take over the pilot boat service and the pilot stations until November 25, 1959. The take-over was not made retroactive and no reimbursement was made to the Districts for the cost incurred between April 1, 1950, and the date of the take-over.

Various other amendments were also made from time to time aimed at improving the financial position of the pension fund.

In 1960, a new General By-law was drafted and confirmed by Order in Council P.C. 1960-841. It abrogated the General By-law of 1929 (P.C. 2164 of October 30, 1929) which had been amended thirty times. Some of these amendments have been mentioned above and most of the others dealt only with increases of the rates and modifications in the rate structure.

The 1960 General By-law (which was analyzed earlier) was in force at the time of the Commission's hearing. It was abrogated and replaced in 1965 by a new General By-law. The main changes are listed on pages 9 and 10 of *Law and Regulations*. Most were aimed at correcting situations that had been revealed or debated at the public hearings of this Commission.

Chapter B

BRIEFS

Seven briefs specifically concerning the British Columbia Pilotage District were filed (vide Preamble to C. 11 of Part I, p. 455):

- (1) The B.C. Coast Pilots of British Columbia, Vancouver and Prince Rupert (B. 10, Ex. 80);
- (2) The Vancouver Chamber of Shipping (B. 3, Ex. 106);
- (3) Crown Zellerbach Canada Limited (B. 5, Ex. 106A);
- (4) The Prince Rupert Chamber of Commerce (B. 8, Ex. 142);
- (5) The Aluminum Company of Canada Limited (B. 12, Ex. 134);
- (6) The G. W. Nickerson Company Ltd. (B. 13, Ex. 144);
- (7) Alaska Trainship Corporation (B. 59, Ex. 1432A).

The reference appearing after each recommendation indicates where the question raised in the recommendation is dealt with in the Report.

(1) THE B.C. COAST PILOTS' BRIEF

In March 1963, when the Commission sat in British Columbia, the B.C. pilots, sixty-six in number, were not organized in any sort of association but were in the process of so doing. All were members of The Canadian Merchant Service Guild, Inc. They had the quasi-organization provided by sec. 5 of the General By-law, i.e., a five-member Pilots' Committee elected yearly in April by ballot to "be recognized by the Authority and the pilots as the sole agent through which representations may be made in all matters affecting the pilots collectively or individually". The brief is signed by the Pilots' Committee members on behalf of the British Columbia pilots.

On February 22, 1963, letters patent had been issued creating under Part II of the Canada Companies Act a non-profit corporation under the name of "The Corporation of British Columbia Coast Pilots". The Corporation is now operating and all the District's pilots are at present members. The head office is in Vancouver.

The Pilots' Committee is still functioning normally; its members are the Corporation's five officers.

Recommendations

The pilots' recommendations are as follows:

- (a) decentralization by giving the Superintendent, in consultation with the local Pilots' Committee, more authority to settle local problems; his name and that of his assistant to be changed to Supervisor and Assistant Supervisor (pp. 65-67 and General Recommendation 15, Part I, pp. 499 and ff.);
- (b) no arbitrary ceiling to be imposed on pilots' earnings, since they have no guaranteed minimum earnings and since additional revenues are the result of increased work (pp. 165-166 and Part I, C. 6, and General Recommendations 21 and 24);
- (c) double dues to be charged when two pilots are employed (pp. 113 and ff. and Comments on pp. 154 and 166;
- (d) the Prince Rupert pilot boat, which is inadequate and unsafe, to be replaced (pp. 107-108);
- (e) a central pilotage board to be created in Ottawa under the authority of the Minister of Transport, composed of a Chairman, with no less authority than the present Director of Marine Regulations, and members representing the shipping industry and active pilots (Part I, C. 11, General Recommendations 15, 16, 17 and 18);
- (f) pilots' expenses, wherever incurred while on duty, to be borne by the shipping industry (pp. 154, 156 and 161;
- (g) pilotage dues to be computed on the basis of maximum gross tonnage (pp. 149-150 and B.C. Recommendation 5);
- (h) movage charges to be commensurate with the added responsibilities of moving large ships (p. 156);
- (i) the pension fund scheme to be revised in order to bring benefits in line with contributions (pp. 189 and ff. and Part I, C. 10, and General Recommendation 39);
- (j) pilots' strength to be increased by seven (from sixty-six to seventy-three) and the tariff to be increased accordingly in order to give the pilots the same earnings (pp. 119-122 and Part I, C. 8, pp. 255 and ff.).

(2) THE VANCOUVER CHAMBER OF SHIPPING'S BRIEF

The Vancouver Chamber of Shipping is an organization composed of agents, owners or operators of cargo or passenger vessels, operating in B.C. waters to foreign ports off shore. It was formed in 1923 and the membership in 1963 comprised twenty-seven firms. On October 4, 1966, it became incorporated under the Societies Act of British Columbia and

under the name "Chamber of Shipping of British Columbia" (Ex. 1493(k)). It is affiliated with the Vancouver Merchants' Exchange, and is a member of the newly-formed "Canadian Chamber of Shipping" whose offices are in Ottawa. The Chamber is the organization recognized by the various government departments as the shipping interests' representative in matters concerning shipping. As such, the Chamber has always been a party to negotiations regarding pilotage matters. This fact is even recorded in the preamble of the Order in Council confirming many amendments to the District General By-law (e.g., Order in Council P.C. 1618 dated April 14, 1949). The Chamber has a committee on "Pilotage and Navigation" whose Chairman, Mr. K. C. Middleton, appeared before the Commission.

Recommendations

- (a) re pilots' qualifications:
 - (i) pilots recruited from towboat Masters to be given training in manœuvring deep-sea ships;
 - (ii) admission of Masters and Chief Officers with deep-sea experience to be facilitated (p. 70 and Comments pp. 72-74);
- (b) inquiries on all shipping casualties to be open to the shipping interests concerned (Part I, C. 9, especially pp. 329-342, 352-373, and 402-414, and General Recommendations 26, 28, 30 and 33);
- (c) the Canadian Merchant Service Guild, Inc., not to take part in negotiations on pilotage matters (p. 137, and Part I, General Recommendations 14, 19, 20 and 21);
- (d) the establishment of a pilot station at Prince Rupert (B.C. Recommendation 3);
- (e) payment of pilotage dues not be made compulsory where there is no properly manned pilot station, if pilots' services are not used (B.C. Recommendation 4);
- (f) coastal vessels regularly trading between United States and Canada to be exempted (B.C. Recommendation 4 and Part I, General Recommendations 22 and 23);
- (g) tariffs to be agreed upon by the Department of Transport and the Chamber of Shipping, the pilots to have no part in the discussion (Part I, General Recommendations 19, 20 and 21);
- (h) a criterion to be established for the remuneration of pilots (Part I, C. 6);
- (i) the pilotage service to be administered by a Pilotage Commission or Board in Ottawa (pp. 65-67 and Part I, General Recommendations 14, 15, 16, 17 and 18);
- (j) a solution to be found, by treaty if necessary, regarding the problem of the changeover of pilots in international waters. (B.C. Recommendation 2).

(3) CROWN ZELLERBACH CANADA LIMITED'S BRIEF

Incorporated in 1914 and with head office in Vancouver, Crown Zellerbach Canada Limited owns and operates in B.C. a newsprint, kraft papers and tissue plant at Ocean Falls with deep-sea wharves (latitude 52.21° North), a paper converting and box plant, a sawmill plant and a specialty hardwood plywood mill at Richmond, with logging divisions at Kokish, Bella Coola, Kitimat, Sandspit and South Bentinck. In addition, other plants are owned and operated in B.C. by its subsidiaries, namely, the Elk Falls Company Limited which operates at Duncan Bay (five miles north of latitude 50°) a newsprint, kraft papers and market pulp plant and sawmill plant with deep-sea wharves; and Crown Zellerbach Building Materials Limited, operating at Fraser Mills a sawmill and plywood plant, with deep-sea wharves on the Fraser River and with logging divisions at three locations on Vancouver Island¹ (Ex. 106A).

They had at that time three chartered ships employed solely in the shipment of the Company's products to its markets in California: *M. S. Seahorse*, *M.S. Trolleggen*, *S.S. Duncan Bay*, and the recently chartered *M.S. Besseggen* to replace *M.S. Seahorse*.

Recommendations

- (a) exemption for vessels in regular coastal trade (B.C. Recommendation 3, and Part I, General Recommendations 22 and 23);
- (b) the two-pilot requirement to be abolished (pp. 111-119 and 154);
- (c) the compulsory payment system to be abolished (B.C. Recommendation 4);
- (d) a boarding station with resident pilots to be established and maintained in the vicinity of the north end of Vancouver Island (B.C. Recommendation 3).

(4) THE PRINCE RUPERT CHAMBER OF COMMERCE'S BRIEF

The Prince Rupert Chamber of Commerce represents the business interests in Prince Rupert and aims at developing the trade and commerce of the locality.

The municipal authorities have confirmed in writing their approval of the Chamber of Commerce's recommendations.

¹ Other active subsidiaries situated in B.C. are Crown Zellerbach Paper Company Limited (coarse and fine paper distributor in Ontario, Manitoba, Saskatchewan, Alberta and British Columbia), Canadian Tugboat Company Limited (tugboats and barge transportation), S & K Limited (plywood manufacture contractor), S. M. Simpson Limited (sawmill and plywood mill), Ferguson Bros. Lumber Limited (timber holding), Kel Services Ltd. (assembly of bulk bins), the Kelowna Saw Mill Company Limited (wholesale plywood distribution), Lumby Timber Company Limited (sawmill), Stave Lumber Co. Ltd. (timber holding), McLean Sawmills Limited (logging), R & L Timber Ltd. (timber holding), Peachland Sawmill & Box Co. Ltd. (timber holding) and Trautman-Garraway Ltd. (sawmill at Peachland).

Recommendations

- (a) creation of a pilot station at Prince Rupert with one resident pilot (B.C. Recommendation 3);
- (b) Prince Rupert area to remain part of the British Columbia Pilotage District (B.C. Recommendation 3);
- (c) a Department of Transport pilot boat to be furnished for Prince Rupert and the boat charges to be the same as at Vancouver (pp. 107 and 108).

(5) THE ALUMINUM COMPANY OF CANADA LIMITED'S BRIEF

In 1952, this Company established an aluminum plant at Kitimat (latitude 54° North) and in conjunction therewith built a townsite (population in 1963 about 9,000). In 1953, the first ship arrived at Kitimat and production started in 1954.

The original investment of the Company at Kitimat was reported to have been in the order of 475 million dollars to which 200 million had been added up to 1963. While at that time the aluminum plant was the only real industrial development in Kitimat, new industries were expected in the valley because of the Kemano power development and the townsite's municipal utilities.

About 1960, Saguenay Terminals Limited, a fully-owned subsidiary of the Aluminum Company, was split into two divisions, one known as the "Port Alfred Division" and the other as the "Saguenay Demarara Division". The latter was responsible for the operation of the ships carrying the raw material (alumina) from Jamaica and shipping part of the finished product (aluminum ingots) for the Aluminum Company, whereas the Port Alfred Division was responsible for the operation of wharves, stevedoring, etc. Since then, the name has been changed to "Saguenay Shipping" responsible for all shipping activities of the Aluminum Company of Canada Limited.

Saguenay Shipping, in addition to carrying alumina and Alcan products, is also in the ocean freight business. They do not belong to any conference line. They do not charter vessels on a voyage basis but on a time basis, except those that are owned by the company. The ships they charter are all non-Canadian. The officers of their British ships are British or Canadian; in 1963, they had five Canadian Masters.

They have corporation arrangements, such as Cedar Shipping Company or Maple Shipping Company, under which ships may be registered but, in fact, the ships they charter are managed by Saguenay Shipping. They had four of Liberian registry and four British in 1963. The time-chartered ships are generally Norwegian—but in some cases Italian or British.

In 1962, out of seventy-one ships that called at Kitimat twenty-nine were operated by Saguenay Shipping (Exs. 133 and 135). The Aluminum Company uses other lines also to ship their metal.

Saguenay Shipping vessels are equipped with modern equipment: echo sounder, D/F, gyrocompass, radar, etc.; their speed ranges from 12½ to 15 knots, and their dead weight tonnage between 12,000 and 16,000 tons.

Saguenay Shipping is a member of the Vancouver Chamber of Shipping.

Recommendations

- (a) the two-pilot requirement to be abolished as far as Kitimat is concerned (pp. 111-119 and 154;
- (b) pilots waiting at Kitimat to be accommodated aboard (p. 161);
- (c) alternatively, either a northern pilotage station to be established south of Prince Rupert or the compulsory payment system abolished (B.C. Recommendation 4).

(6) G. W. NICKERSON COMPANY LTD.'S BRIEF

This Company, founded in 1909, with head office in Prince Rupert, acts as shipping agent for any ships but mostly ocean-going ships.

Recommendations

- (a) the establishment of one resident pilot in Prince Rupert be not approved because it is economically unsound (B.C. Recommendation 3);
- (b) the pilots be brought into the Civil Service and pilotage charges be made uniform for all British Columbia ports (B.C. Recommendation 3);
- (c) the pilot boat service in Prince Rupert be taken over by the Department of Transport at a \$10 charge, as in Vancouver (pp. 107 and 108);
- (d) in case of expected long delays, the employment as pilot of the Harbour Master, Capt. W. H. Koughan, be authorized (Part I, pp. 208-210).

(7) ALASKA TRAINSHIP CORPORATION'S BRIEF

This Corporation owns and operates the trainship Alaska in regular weekly service transporting rail cars between their Delta Alaska Terminal on the Fraser River near New Westminster and Whittier, Alaska.

The ship is 520 feet in length, 5,598 gross tons, 3,103 net tons, Liberian registry, Canadian crew.

The usual route is in Canadian waters through Dixon Entrance, but occasionally they use Queen Charlotte Sound or Juan de Fuca Strait.

Recommendation

Elimination of the requirement in the British Columbia Pilotage District for payment of fees when services are not rendered (i.e., to the exempt) (B.C. Recommendation 4).

Chapter C

EVIDENCE

1. GENERAL DESCRIPTION

(1) DISTRICT LIMITS

The Pilotage District of British Columbia comprises all the coastal waters of British Columbia, with the exception of the waters of the Pilotage District of New Westminster. The District extends 600 miles between the International Boundaries separating Canada from the United States and contains some 11,000 miles of coastline along the mainland and the inlets and islands, including Vancouver Island and the Queen Charlotte Islands.

The *northern limit* of the District is the International Boundary, i.e., a line running between Cape Muzon ($54^{\circ} 40'$ north latitude), the southern tip of Dall Island, and the entrance of Pearse Canal whence it proceeds in a northerly direction through the middle of Pearse Canal and Portland Canal. The first section of the boundary line presents no difficulties. In the two canals, however, a ship may stray over the boundary and be temporarily outside the British Columbia District. At the present time this constitutes only a theoretical problem, firstly, because there are few large ships in the canals and, secondly, because there is no State law governing pilotage in Alaskan waters, existing pilotage being voluntary and conducted by a private organization.

The *southern limit* of the District is the International Boundary, i.e., a line running easterly through the middle of the Strait of Juan de Fuca (the most southerly point is $48^{\circ} 15'$ north latitude), then northerly through Haro Strait, northeast through Boundary Passage, northwest through the middle of the Strait of Georgia to the 49th parallel. Thence, the limit is the seaward boundary of the New Westminster Pilotage District¹.

Because of the narrow waters, the features of the land and the angles of the boundary line in Haro Strait, a vessel crosses the International Boundary Line several times; hence, the pilot on duty—Canadian or U.S.—is frequently outside his territorial competency. Some 90% of northbound movements are in United States waters; approximately half the southbound movements take place on either side of the boundary. For many years Canadian and U.S.

¹ See Section Two, New Westminster Pilotage District.

pilots have had a "working agreement" that when a ship proceeds through Haro Strait with both a Canadian and a U.S. pilot on board pilotage jurisdiction changes either near the Lime Kiln, San Juan Island, or off East Point. This arrangement obviates the necessity for transferring the responsibility for pilotage each time a ship happens to cross the boundary line. Canadian pilots are also permitted to pilot vessels from Brothie Ledge pilot station near Victoria through Haro Strait to Canadian ports, and vice versa, without a U.S. pilot on board, despite the fact that these vessels traverse U.S. waters in the Strait a number of times *en route*, if a normal, safe course is followed.

In 1961, a crisis arose when the Canadian pilots refused to board ships in Puget Sound, U.S.A., ports as had been their custom and thus forced vessels to detour to Brothie Ledge; in return, the U.S. pilots threatened to take measures to keep Canadian pilots out of United States waters.

An unexpected sequel to this dispute was an application to the Attorney General of the State of Washington by the Board of Pilotage Commissioners of that State for a ruling on the extent of the State's pilotage jurisdiction. The reply was that their pilotage jurisdiction extended to the International Boundary which meant that, because of the compulsory pilotage requirements in U.S. waters, every vessel sailing through Haro Strait would have to pay dues to the U.S. pilots since it would enter United States waters while negotiating the channel. In addition, it was ruled that a Canadian citizen was not allowed to pilot vessels in those portions of Haro Strait which are United States territory; that the State of Washington could not give a Canadian citizen a licence to pilot in United States waters; and that, under the American Constitution, the State was not permitted to enter into any agreement with the Canadian Government to distribute the responsibility for pilotage between U.S. and Canadian pilots because only Congress can make international agreements.

The converse would also be true with the important difference that Canadian pilots have no alternative route to Haro Strait while U.S. pilots can bring ships to the Strait of Georgia through Rosario Strait which lies wholly within United States territory (a course of action they followed during the dispute, with the result that they received greater remuneration in view of the increased mileage).

The Haro Strait question is now settled temporarily. The U.S. shipowners adopted a suggestion made at a meeting between the Pilots' Committee and the Vancouver Chamber of Shipping that there be no change in the transfer points (Lime Kiln and East Point) or in the amount of the British Columbia pilotage charges, but that the charges of the Puget Sound pilots be indirectly increased by granting them more than the actual mileage to the turnover points. In an Ordinance dated March 5, 1964, the Board of Pilotage Commissioners of the State of Washington indirectly gave effect to the agreement reached between the U.S. pilots and the U.S. shipowners by establishing a new tariff.

While this *de facto* settlement has been accepted by the Canadian authorities, the basic problem remains and, since further complications are likely to arise, a settlement should be sought at the international level. In Canada, pilotage is the sole responsibility of Parliament. In the U.S.A., the Commerce Clause of the Constitution gave Congress power to regulate commerce with foreign nations and among the several States. In implementing this authority, Congress decided August 7, 1789 (46 U.S. Code, sec. 211) that pilotage should continue to be regulated under the existing and future laws of the respective States until further legislative provision was made by Congress. In 1960, a similar situation on the Great Lakes and St. Lawrence River between Cornwall and Kingston was resolved by intergovernmental "arrangements" between Canada and the United States. Theoretically, such arrangements could be reached with respect to the international boundary waters separating Canada from the United States on the Pacific Coast, but the Department of Transport has adopted the attitude that no action should be taken as long as the existing informal arrangements produce the desired result.

It is a matter of considerable difficulty to give a precise definition of the seaward limits of the B.C. Pilotage District. The Order in Council creating the District (P.C. 493 dated March 22, 1929) makes the limits

"the coastal waters of the Province of British Columbia"

but what constitutes these *coastal waters*, in fact and in law, is a very complex question.

It appears that in 1929 *coastal waters* had no definite meaning in Canadian legislation. The expression is not used in the Canada Shipping Acts of 1906 and 1927, nor has it been defined at any time since. Instead, *coasts* is used in contrast to *inland waters*, but the statutory definition is of little assistance. Sec. 713 of the 1927 C.S.A. states:

"'Coasts' include the sea coast and the salt-water bays, gulfs and harbours on the sea coast."

It would appear, however, that the expression *coastal waters* was used to mean what is now known as the *territorial sea*.

Coastal waters are defined in two British Acts, for the purpose of those two Acts, as follows:

- (a) "'Coastal waters' mean, in relation to any country or territory, waters within a distance of three nautical miles from any point on the coast of any part of that country or territory, as the case may be, measured from low-water mark of ordinary spring tides".

(Whaling Industry [Regulation] Act, 1934, 24-25 Geo. V, c. 49, subsec. 17(1))

- (b) "Inland waters include rivers, harbours and creeks; and coastal waters mean waters within three nautical miles from any point of the coast measured from low-water mark of ordinary spring tides".

(Public Health Act, 1936, 26 Geo. V, and 1 Ed. VIII, c. 49, subsec. 343(1))

The Territorial Sea and Fishing Zones Act (Can.) enacted in 1964 (13 Eliz. II, c. 22) would provide a solution if it were made effective. It provides that:

“the territorial sea of Canada comprises those areas of the sea having, as their inner limits, the baselines described in section 5 and, as their outer limits, lines measured seaward and equidistant from such baselines so that each point of the outer limit line of the territorial sea is distant three nautical miles from the nearest point of the baseline.”

The baseline is to be determined from “one or more lists of geographical co-ordinates of points” to be issued by the Governor in Council by Order in Council (subsec. 5(1)). It consists of “straight lines joining the consecutive geographical co-ordinates of points so listed” (subsec. 5(2)). Until such an Order in Council is passed, “baselines remain those applicable immediately before the coming into force of this section” (subsec. 5(3)). Furthermore, sec. 6 stipulates that the Minister of Mines and Technical Surveys [now Energy, Mines and Resources] may cause a chart to be issued delineating, *inter alia*, the territorial sea of Canada. As of April 1968, no Order in Council had been passed regarding the determination of the baselines on the west coast, nor had any chart indicating the territorial sea on the west coast been issued.

Therefore, it remains to be determined what were the baselines on the B.C. coast prior to the coming into force of the Territorial Sea and Fishing Zones Act. It would appear that the only document containing any information on the matter is Order in Council 3139 dated December 18, 1937 (Ex. 1493 (j)), wherein such baselines were determined for the purposes of the Customs Act which applied nine nautical miles seaward from the baseline. The pertinent section reads as follows:

“III. *As to the bays, gulfs and straits on the Pacific Coast.*

(1) That a map be prepared pursuant to the provisions of the Customs Act marking out the territorial waters of Canada adopting as base lines for this purpose the following lines:—

(a) In respect of Juan de Fuca, the Strait of Georgia, Queen Charlotte Sound and the connecting waters, a line from Tatoosh Island Lighthouse to Bonilla Point reference mark at one end, and in Queen Charlotte Sound at the other end of the straits, a line drawn in accordance with the ten mile rule, i.e., a straight line across the sound in the part nearest the entrance at the first point where the width does not exceed ten miles.

(b) In respect of the bays and straits which form part of the coastal archipelago from Queen Charlotte Sound to the Alaskan Boundary inclusive, and the bays on the west coast of Vancouver Island, lines drawn in accordance with the ten mile rule.

(2) That pending any action by the United States looking to a further extension of the International Boundary beyond the base line in Juan de Fuca Strait described in sub-paragraph (a) above, a proclamation be issued pursuant to section 2 (1) (u) (iii) of the Customs Act restricting temporarily for customs purposes Canadian waters to the waters delimited by said base line to the intent of cutting off the three mile zone west of the said base line, outside of the three mile limit off the coast of Vancouver Island.

(3) That a proclamation be issued under authority of section 2 (1) (u) (iii) of the Customs Act restricting temporarily for customs purposes the extent of Canadian waters in respect of Dixon Entrance and Hecate Strait to the three mile belt.

(4) That the interested departments should take care in their administrative practices and in the issuing of documents to follow no course inconsistent with Canadian sovereignty over Canadian waters as delimited in accordance with the foregoing recommendations; and that special care be taken in respect of Dixon Entrance and Hecate Strait to avoid the issuing in any public documents of any instructions with regard to the nonexercise of Canadian sovereign rights over these waters outside of the three mile zone."

Despite the direction contained in the Order in Council, no chart of the west coast *territorial waters* was prepared. (Ex. 1523.)

This Order in Council, however, applied only for the purpose of enforcement of the Customs Act and, therefore, the baselines therein described would have no application for the purpose of determining pilotage jurisdiction. Hence, the baselines would be those normally recognized in International Law, i.e., the low water mark, normal spring tides. The indented shore of the B.C. coast, especially in the Northern Region, makes a very irregular baseline and, in the absence of a large scale chart indicating this line, it is a practical impossibility to determine with any degree of precision where the seaward limit of the District lies.

In the case of the "Reference re Ownership of Off-shore Mineral Rights" (1967, 65 D.L.R. (2d) 353, at page 375), the Supreme Court stated that the effect of the Territorial Sea and Fishing Zones Act of 1964

"coupled with the Geneva Convention of 1958, is that Canada is recognized in international law as having sovereignty over a territorial sea three nautical miles wide. It is part of the territory of Canada."

The judgment, however, does not deal with the question of the localization of the baseline from which to measure the three nautical miles because this was not a point at issue.

In the organization of coastal pilotage, it is of vital importance to determine the seaward limit of the Pilotage District. A Pilotage Authority has no jurisdiction over navigation outside the limits of its District and a pilot is no longer a licensed pilot when he proceeds beyond those limits (subsec. 333(3) C.S.A.). All pilotage regulations cease to apply whenever a ship is outside District waters, even for a short period. Hence, it is essential to establish exactly where the seaward limit of the B.C. District lies. This will be the subject of a specific Recommendation.

(2) PHYSICAL FEATURES

The pilots of the British Columbia District claim that their Pilotage District is the largest in the world². The long, dangerous coastline is indented with bays and inlets, some extending over a hundred miles from

² The largest coastal pilotage district that has come to the Commission's attention is in the State of Queensland, Australia (vide Part I, *Appendix XIII*, p. 777).

the ocean and lying fifty or sixty miles from the main channel. These fiord-like inlets and channels have rugged entrances strewn with reefs and rocks, their walls are precipitous, they are very deep, offer limited anchorages and present many tidal problems. The mainland is sheltered from the open sea by numerous islands which create a series of deep water channels called the inside passage. They are lighted and buoyed where necessary and are extensively used by shipping. Stretching out from the passage, long intricate channels penetrate the mainland. They are generally narrow and bordered by mountains whose shadows add to the difficulty of night navigation.

The outer shield is formed by Vancouver Island, which extends 240 miles north and westward from the Strait of Juan de Fuca, and the Queen Charlotte Islands which begin after a gap of 100 miles and run for 150 miles almost to the Alaskan border.

The tidal range increases from the outer coastline through the inner passage and also from south to north, reaching a maximum of 24 feet in the Prince Rupert area and diminishing in Northern Alaska.

The Strait of Juan de Fuca, at the southern end of Vancouver Island, is 60 miles long and 20 miles wide. Below Victoria the channel turns southward for a hundred miles to form Admiralty Inlet and Puget Sound in the State of Washington. East of Vancouver Island is the island-dotted Strait of Georgia, 130 miles long and some 15 miles wide, out of which run several large inlets including Burrard Inlet where the harbour of Vancouver is situated.

At the northern end of Vancouver Island are Goletas Channel, Queen Charlotte Strait, Broughton Strait and Johnstone Strait, the latter averaging less than two miles in width over its one hundred mile course.

Johnstone Strait terminates in Quadra and Sonora Islands which almost seal off the southward passage of water into the Strait of Georgia. Between Vancouver Island and Quadra Island lies Discovery Passage, the most dangerous part of which is Seymour Narrows. Large ships must use this thirty-five mile channel although the currents run as high as fourteen knots and vary with the tides.

The strongest currents are met in Seymour Narrows but in other parts of Discovery Passage great eddies and counter-currents are found at certain stages of the tide. Although the reduction of Ripple Rock has removed the danger of foundering on it, a slow ship should not try to pass through Seymour Narrows against the tide because the currents remain hazardous and the eddies thrust the vessel toward the shore; in these waters the value of radar is decreased because tidal rips show up on the screen as would rain squalls or snow flurries.

Ice presents no navigational hazards and all harbours are open throughout the year, but fog, rain and high winds cause frequent difficulties.

Since the western shores of the exposed islands are subject to heavy seas, shipping must keep well clear and it is almost impossible to embark or disembark cargo and passengers except in sheltered harbours.

The inside passage from the Victoria pilot station to the Alaska boundary—a distance of 575 miles—consists of sheltered passages of varying width which enable vessels to avoid rough seas and save steaming time. Tidal conditions prevail throughout. Many areas have not yet been surveyed by the Canadian Hydrographic Service. Navigational aids consist mostly of unwatched lights with no fog signals and many shallows and dangerous areas are unmarked or insufficiently indicated. At night, visibility is contorted by the dark shadows of the neighbouring mountains.

In the canals, channels and inlets the principal hazard to navigation is bad weather: fog, mist, rain, sleet, snow and gusty winds. Area forecasts are not always available or reliable largely because the weather changes so suddenly. While these difficulties do not prevent ships' movements, they cause delays and impose additional strain on the pilots.

Deep draught vessels can proceed to most ports in the District. On the other hand, because of the great depth of water, anchorages are generally lacking and this may be dangerous in certain circumstances. In channels bordered by precipitous shore-lines, a ship which misses a light or which is proceeding in poor visibility will be forced to remain in deep water, navigating by whistle echo, or by radar if it is available. Navigation by whistle echo requires intimate local knowledge for the ship's position is determined by the elapsed time between sounding the ship's whistle and the return of the echo from the surrounding rock face.

(3) MARITIME TRAFFIC

Maritime traffic in British Columbia waters consists mainly of ocean-going vessels (both liners and tramp steamers), coastal vessels, fishing boats, and tugboats towing barges, scows and log booms.

There is a regular movement of ocean-going vessels from Europe and the east coast of the U.S.A. and from the Pacific ports of the U.S.A., Australia, New Zealand and the Orient.

Coastal traffic is extensive for three reasons: the inside passages make excellent protected waterways; land transportation is difficult in the mountainous, indented terrain; maritime traffic between Alaska and Continental U.S.A. is added to the British Columbia traffic.

The sheltered waterways encourage the development of voluminous tugboat traffic. Tugs in this area use long tow-lines to tow log booms, barges and scows, sometimes single, sometimes in tandem; log booms or other tows often exceeding 1,000 feet in length may be encountered throughout the District. Because they take up so much of the fairway, they are a hazard to navigation, especially in narrow waters and where the channel bends. If a

boom is hit or broken, the logs scatter creating additional hazards. To an increasing extent barges towed with six hundred to a thousand feet of cable are now replacing the booms.

The "full cargo" movement—except for newsprint—is generally conducted by tramp steamers. Outwards their principal cargoes are grain, lumber, wood products, coal, potash, sulphur, fish, fruit, metals and metal products; for inward voyages their main cargoes are salt, rock phosphate, gypsum, bauxite (Kitimat), concentrates and manufactured products, but frequently they arrive light. More cargo is carried by tramp steamers than by liners but the latter make more frequent calls.

Lumber ships under charter frequently have to visit six or eight ports on Vancouver Island, in the Strait of Georgia and on the Fraser River in order to load a complete cargo. Of recent years, this pattern has been changing. In the decade 1958-1968, the number of barges is reported to have risen from 250 to 500 and, because of convenience and low cost, they have largely replaced steamships for the coastwise movement of freight, particularly lumber and paper from upcoast ports. It has been proved more economic to barge these products to ship-side in main ports than to sail ships to the sources of supply. (For examples of the charges for such trips, see pp. 170-172.)

The great majority of liners and tramp ships using B.C. waters are foreign vessels. For example, Vancouver Merchants' Exchange *Statistical Reports* (Ex. 117), state:

	1961	1962	1963	1964	1965	1966
1. Deep Sea Vessels Entered Vancouver.....	1,673	1,708	1,667	1,769	1,742	1,658
2. Total Net Registered Tons of <i>I.</i> above.....	8,065,527	8,480,935	8,906,569	9,520,333	9,665,195	9,865,081
3. Total Number all Vessels Entered Vancouver.....	24,535	24,207	21,178	21,462	21,746	20,951
4. Total Net Registered Tons of 3. above.....	21,935,435	20,585,515	17,679,423	18,670,875	19,220,510	19,400,691
5. Total Exports from B.C. in Tons.....	10,989,867	11,223,773	13,760,543	16,009,366	15,615,549	17,395,397
6. Total Imports to B.C. in Tons.....	1,633,693	1,769,865	1,780,998	2,089,690	2,761,017	2,959,517

Of the 1,708 deep sea arrivals in 1962, for example, 175 were U.S., 232 Greek, 227 Japanese, and 300 Norwegian. The extent of coastal traffic is shown by Dominion Bureau of Statistics figures for the same year: 12,226 vessels over 250 net registered tonnage (including the 1,708 ocean-going ships mentioned above), arrived in Vancouver. In other words, 86% of the traffic is coastal, not to mention the extensive tugboat movements in the same waters. The number of deep sea vessels has increased substantially since 1959 when there were 1,433; their net registered tonnage has also increased.

The pattern of maritime traffic has changed in recent years and will continue to alter as ships develop in size, construction, speed and manoeuvrability. The trend is to larger and faster ships. Those in B.C. waters now range from 300 to 1,000 feet in length, from 10,000 to 40,000 tons and from 15 to 18 or 20 knots. The 10-knot ship has practically disappeared. The new vessels are better equipped with navigational aids and the bridge aft type is becoming common.

Salmon fishing boats constitute a particular hazard in the District especially when concentrated in the Fraser estuary during July and August and the foggy autumn months. Five thousand fishing boats—mostly gill-netters drifting—may be seen at one time covering many miles of the Gulf of Georgia. During dark hours, they carry two small lights—one at the end of their net and one on board—as they move with the tide. They do not maintain a strict watch and, in any event, are unable to manoeuvre. Passing vessels must exercise special care, particularly since experience has shown that it is difficult to distinguish which light denotes the boat and which the net.

While no collisions with fishing vessels have been reported, their nets are sometimes cut and local complaints are numerous. Many complaints were forwarded to the Department of Transport and efforts were made to establish open water ship channels about one mile in width that could be kept clear of fishing boats. After discussion with the interested parties, an agreement of this nature was reached and a pamphlet, *1960 Safe Fishing and Navigation (Recommendations)*, was published in 1960. It included diagrams indicating the channels which were to be open for ships (Ex. 89)³.

Two possible remedies were suggested. Firstly, it was noted that on the St. Lawrence River between Quebec and Father Point small craft drawing less than nine feet are required, except when crossing the river, to stay out of the lanes used by steamers⁴. In the opinion of the Department of Transport, these regulations could not be applied in British Columbia because B.C. coastal waters are open waters, not inland waters. There is, however, a

³ There is no record that these recommendations were ever published in a Notice to Mariners.

⁴ St. Lawrence River Regulations, sec. 8, P.C. 1954-1925 dated December 8, 1954, and amendments made by the Governor in Council on the recommendation of the Minister of Transport pursuant to subsec. 645(1) C.S.A., Ex. 1461(j).

possibility that regulations could be made under subsec. 645(4) C.S.A., "other waters of Canada". Secondly, the Department of Fisheries could exercise control by withdrawing the fishing licences of offenders. The Commission was informed that no action was envisaged because the Department of Transport in Ottawa had received no official complaints that the 1960 *Safe Fishing and Navigation (Recommendations)* were not being observed.⁵

Figures supplied by the Dominion Bureau of Statistics for the years 1959-1966 inclusive are as follows:

Year	(1) Total Number of Vessels over 250 Tons Multiplied by two*	(2) Number of Vessels Employ- ing Pilots	(3) Per- centage of (2) over (1)	(4) Total NRT of Vessels over 250 tons Multiplied by two*	(5) NRT Piloted	(6) Per- centage of (5) over (4)
1959.....	38,102	5,925	15.6	51,748,962	21,070,615	40.7
1960.....	44,920	6,468	14.4	66,182,222	28,971,088	43.8
1961.....	47,612	6,629	13.9	68,391,800	30,914,494	45.2
1962.....	53,172	6,866	12.9	76,430,160	32,217,850	42.2
1963.....	59,246	6,873	16.0	85,122,778	34,657,721	40.7
1964.....	60,648	7,303	12.0	83,521,446	36,874,357	44.2
1965.....	60,112	7,147	11.9	89,779,328	37,410,635	41.7
1966.....	59,984	6,885	11.5	91,513,436	37,740,585	41.2

* Because one arrival means two pilotage trips and, hence, one vessel in harbour statistics is counted as two in pilotage statistics, for comparative purposes the D.B.S. figures are multiplied here by two.

This Table should not be taken to give more than general information because a number of factors prevent the DBS statistics from agreeing with the pilotage statistics. When such a comparison is made in a port type Pilotage District, it is more accurate because an entry in DBS statistics means two pilotage trips, but this is not necessarily so in a coastal District because the DBS statistics do not take into account vessels merely in transit. The comparison holds for ships that come from outside the District and call at only one port but, when a pilotage trip is between two District ports, one entry in DBS statistics means one pilotage trip. When a ship calls *en route* at Prince Rupert as a Port of Entry, the round trip from sea to the port of destination and back to sea *via* Prince Rupert accounts for three DBS entries and two pilotage trips. However, since there are few such Prince Rupert entries comparatively speaking and the number of trips involving only one port is considerable, the percentage figures in columns 3 and 6 should be reasonably accurate. It is believed that these percentages would be only slightly higher if accurate statistics could be compiled.

Appendix B shows that during the period 1948-1966 inclusive, the number of vessels employing pilots increased by 174% and the net registered tonnage increased by 391%.

⁵ In reply to an enquiry by the Commission, the Superintendent of Pilotage, Department of Transport—Capt. D. R. Jones—wrote on 15 January 1968 that, according to an official in the federal Department of Fisheries, "this pamphlet which was published by local interests has not been replaced or amended but appears to have fallen into disuse" (Ex. 89A).

In the Northern Region, pilots are being employed more frequently because ocean-going ships are now sailing to primary ports for cargoes of ore, lumber, etc. Statistics for November and December 1962 and January 1963, for example, show that 25% of ships taking pilots were calling at ports in the Northern Region or on the west coast of Vancouver Island.

The pilots and some shipping agents expressed concern that maritime traffic would not be maintained on a regular basis with a consequent effect upon their livelihood, e.g., shipments of wheat and other products tend to be periodic.

(4) SOUTHERN AND NORTHERN REGIONS

Geographically and economically, the British Columbia coast is divided into southern and northern regions; the British Columbia Pilotage District is similarly divided for administrative purposes. The arbitrary dividing line for pilotage organizations is set at the 50th parallel.

The *Southern Region* comprises the Strait of Georgia and the Canadian waters south of it, exclusive of the New Westminster Pilotage District. It contains most of the coastal population and the majority of the principal ports. There are good communications with the interior and with the islands.

The *Northern Region* comprises the waters north of the 50th parallel and the waters west of Vancouver Island south of the 50th parallel as far as the International Boundary, and in the Strait of Juan de Fuca as far as Race Rocks, nine miles south of Victoria. There are few inhabitants and land communications are deficient. Except for Prince Rupert, the ports are isolated and largely dependent on the extractive industries.

One of the recommendations of Mr. Justice Morrison in his 1928 Report was to divide the British Columbia coastline waters (exclusive of the New Westminster Pilotage District Territory) into Southern and Northern Districts because of the growing importance of Prince Rupert and other ports in the northern part of the Province. His recommendation was not implemented.

Appearing before the present Commission, the Regional Superintendent of Pilots, Capt. F. N. Eddy (retired April 1, 1967), who has extensive experience on the B.C. Coast, said that the creation of a separate Northern District would be a retrograde step. Not only would there be additional expenses but shipping would be inconvenienced by the requirements to change pilots at district limits.

At the hearing in Prince Rupert, the City of Prince Rupert supported its Chamber of Commerce in opposing the division because it would involve increased administrative costs.

(5) PRINCIPAL HARBOURS

The preponderance of ocean-going traffic in this District is handled by some thirty harbours of which the most important are: Vancouver, Victoria, Esquimalt, Nanaimo, Port Alberni, Powell River, Ocean Falls, Kitimat and Prince Rupert (including Watson Island and Porpoise Harbour). Since 1963, shipping has continued to increase in the B.C. District. Facilities have been added in existing ports and new ports have been opened. The number of ports reached thirty-five in 1967 with the addition of Gold River, Nootka Sound (on the west coast of Vancouver Island), and Tasu Harbour, Tasu Sound (on the west coast of the Queen Charlotte Islands).

(a) *Vancouver*

Vancouver is Canada's third largest city and the most important port in B.C. It is a Port of Entry. At the time of the Commission's hearings, the large, natural harbour had 62 deep sea berths and 32 coastal berths, could accommodate the largest ships afloat and handled annually some 15,000,000 tons of cargo (approximately 40% of the total B.C. traffic). The pilots stated that ocean-going traffic increased from 207 ships in 1915 to the 1,839 that the port handled in 1962 (Ex. 80).

In Vancouver Harbour, tidal swirls are a hazard to ships proceeding to Prospect Point and some accidents have occurred there⁶.

Although recent dredging has improved the overall tidal conditions in Vancouver Harbour, it has aggravated the situation in the First Narrows so that, under present conditions, a deeply loaded vessel proceeding out of the harbour with a strong flood tide has to struggle to keep on her own side of the channel until she is almost abreast of Calamity Point. Then the situation is reversed and she has considerable difficulty keeping off the North Shore.

The Second Narrows Bridge has also proved a danger to navigation because of the strong currents created by the narrow central span. Between 1925 and 1930, there were 16 accidents and another in 1954. A modern railway span is scheduled to replace the old bridge. Occasionally, very large ships like the 736-foot S.S. *Argyll* employ two pilots. The second pilot acts as bow lookout and the two pilots communicate by portable radiotelephone (vide Sec. Two, p. 292).

Ships proceeding to Vancouver generally embark their pilots off Brotchie Ledge near Victoria, some 80 miles to the south. In the main harbour, tidal

⁶ In 1958, there was a collision between the Liberian *Green River* and the Japanese *Hikawa Maru*; in 1960, between the *Princess Elaine* and the *Alaska Prince*; on January 16, 1964, between the Norwegian M/V *Hoyanger* and the U.S.S. destroyer escort *Whitehurst*. The *Green River-Hikawa Maru* casualty was due, *inter alia*, to the combination of a strong flood tide and the lack of power of one of the ships. The last named accident was caused by a strong ebb sweeping one of the ships off her course.

currents or occasional winds may present problems but the chief difficulty is the glare of the city lights at night⁷.

A special navigational aid is the radar station which has been operating for some time in the centre of Lion's Gate Bridge. There are two radars and two radar screens with an operator on watch at all times to serve ships entering or leaving harbour. Upon request, the operator counts into a loud-speaker and the pilot can judge by the sound of his voice whether the ship is heading for the centre of the bridge. (A ship can use this service without being equipped with radar.) In addition, the pilot can speak by radiotelephone to ships which carry this device.

(b) *Victoria and Esquimalt*

Victoria has an Inner Harbour accommodating coastal vessels and an Outer Harbour for deep sea vessels. The entrance to the Inner Harbour is restricted by the tide, the controlling depth of the channel being only 18 feet. The main deep sea berths lie inside a 2,500-foot breakwater. Tides and winds are frequent hazards and vessels may have to anchor to await favourable weather. It is a Port of Entry.

Esquimalt Harbour lies within the limits of the Port of Victoria. It is the Pacific base of the Royal Canadian Navy and also accommodates merchant ships in repair yards and the large Government Dry Dock.

(c) *Nanaimo*

Nanaimo, the central port of Vancouver Island and situated only 32 miles from Vancouver, has a sheltered inner harbour with a channel depth at mean low water of 31 feet and maximum tides of 14 feet. It is a Port of Entry. There are good anchorage facilities off the harbour. Ships bound for Nanaimo normally embark their pilots off Brotchie Ledge.

Nanaimo is the Customs and Immigration clearance port for vessels loading iron ore and limestone at Texada Island (northern Strait of Georgia). Since Nanaimo is a pilot station, ships also change pilots there.

Certain problems may be experienced when approaching the harbour because the C.P.R. ferry obscures the range lights during its four daily visits. When high tides and spring freshets in the Nanaimo River coincide, it may be difficult to berth large ships in the harbour.

(d) *Port Alberni*

Located at the head of Alberni Canal, some 24 miles from its entrance, Port Alberni is the principal port on the west coast of Vancouver Island. Vessels of any size and draught can be accommodated. It is a Port of Entry.

⁷ For example, at 7.20 p.m. on November 27, 1963, the Greek S.S. *Evie* and the Irish S.S. *Irish Rowan* were in collision because the *Evie* could not see the other ship for the brilliant lights in the background. Pilots have been warned of this hazard and it has been suggested that portable radiotelephones should be standard equipment.

Foggy weather is common during the summer months and ships are often obliged to anchor, if an anchorage is available, or to keep moving slowly in the channel. Strong local winds, often rising to gale force, make navigation difficult especially when ships are light. Detailed local knowledge is essential.

In order to provide a more convenient boarding location than the official boarding stations at Brothie Ledge and Triple Island, an unofficial boarding station has been established off Cape Beale, in Barkley Sound. A local boat takes the pilots from Port Alberni out to Cape Beale, a distance of 35 miles. Ships are boarded off Cape Beale in daylight and in good weather; in bad weather, the pilot boat leads ships into Alberni Inlet until boarding is feasible.

(e) *Kitimat*

Kitimat is situated well inland at the head of Kitimat Arm, Douglas Channel. A townsite and harbour created by the Aluminum Company of Canada service a smelter capable of producing one billion pounds of aluminum annually. It is a Port of Entry.

An entrance channel 2,400 feet long, varying from 800 to 400 feet in width, leads to two wharves. Mooring dolphins are available for vessels up to 16,000 tons waiting for a berth. Two anchorages are sometimes used, but they are not recommended. In the restricted harbour, the main pilotage difficulties are fog, wind and currents running up to four knots. Ships from the south usually embark pilots off Cape Beale and pilotage commences at McInnis Island; ships from the north take their pilots off Triple Island, 133 miles from Kitimat. Some ships may embark a pilot at other boarding stations and come to Kitimat by the outside passage (560 miles from Vancouver) or by the inside passage (444 miles from Vancouver).

(f) *Prince Rupert*

Prince Rupert is situated in Northern B.C. on the northwest side of Kaien Island, close to the Alaska boundary and almost at the extremity of the Pilotage District. It is a Port of Entry. It is also a railway terminal for Central and Eastern Canada with freight rates the same as to Vancouver. Prince Rupert is also in a preferred geographical position for sailings to and from the Orient:

Prince Rupert—Hong Kong	5320 miles
Vancouver—Hong Kong	5750 miles
Prince Rupert—Yokohama	3830 miles
Vancouver—Yokohama	4260 miles

Pilots are embarked off Triple Island, the northern boarding station, 25 miles from the port. Triple Island is exposed and rough weather creates additional difficulties for the pilot boat. In winter, the wind may reach velocities up to 70 miles an hour and 25 foot tides are also encountered.

The Commission's Nautical Adviser commented as follows on Triple Island Boarding Station:

"While I must confess to some uneasiness regarding the designation of Triple Island as a boarding point—the hard fact remains that there is no suitable alternative. Singularly harsh weather prevails in this area and from the ship masters' point of view it would be anathema to steam directly toward a wall of foul ground such as exists in the Triple Island area. The only gap is a three mile channel between Triple Island and Stenhouse Shoal to the north. A vessel would, in the majority of cases, embark the pilot when lying on [sic.] a lee shore."

"To mitigate these hazards we have excellent aids to navigation in all the approaches to Triple Island; in thick weather the radio beacons in the area would give good navigational fixes. As a final resort the pilot boat could lead a vessel into smooth water by means of the 'Follow Me' signal. My only recommendation as regards aids to navigation is the installation of a Light and Whistle Buoy on Stenhouse Shoal so that the two sides of the entrance 'door' be clearly delineated."

The second half of the inward passage is very restricted and difficult.

Porpoise Harbour, 54° 14' North, 130° 17' West, a landlocked harbour 8 miles south of Prince Rupert, serves the industries of Watson Island and Port Edward. It must be entered in daylight through a restricted passage with two pronounced alterations of course which necessitate close attention to speed and timing.

(6) AIDS TO NAVIGATION

Aids to navigation in the B.C. Pilotage District are generally considered to be satisfactory. Suggestions for improvements are made to District Marine Agents who make their recommendations to the appropriate branch of the Department of Transport. Proposals favourably reported on are usually implemented by the Department, if, and when, funds are available. Ninety-nine per cent of the requests for alterations or replacements received up to the time of the Commission's hearing had been granted.

(a) *Southern Region*

In 1963, there were in this region 315 unwatched lights, a few of which were out of service occasionally, e.g., in 1962, some failed for a total of 827 days, representing a relative efficiency of 99.28 per cent. When a light is reported out, a navigational warning is issued unless repairs can be effected without delay. The Canadian Government operates a system of communications which issues warnings to ships over six coastal radio stations located at Victoria, Vancouver, Cape Lazo, Alert Bay, Bull Harbour and Tofino.

(b) *Northern Region*

From Cape Caution, Queen Charlotte Sound, to the Alaskan Boundary, there were, in 1963, 178 unwatched lights. In 1960, 76 of these were out of service for a total of 689 days; in 1961, 81 for 697½ days; and in 1962, 67 for 476 days. The relative efficiency for 1962 was 99.27 per cent. When one of these lights fails, the District Marine Agent may have a trip of

as long as three days from Prince Rupert to relight it. Obviously, it is uneconomical to make such a long trip for a single incident and, therefore, a light some distance away may be out of service for several days. If a light can not be repaired without delay, a notice is sent out to ships and warnings are broadcast by the Government's radio stations at Tofino, Bull Harbour, Alert Bay, Sandspit and Digby Island near Prince Rupert.

2. NATURE OF PILOTAGE SERVICE

(1) OPINIONS RECEIVED ON THE NATURE OF THE SERVICE

The Department of Transport, the pilots and most of the shipping interests are of the opinion that pilotage is a special service to Masters who are not familiar with the coast of British Columbia.

On the other hand, the spokesman for the Aluminum Company of Canada and the President of G. W. Nickerson Co. Ltd., Prince Rupert, consider that pilots render a public service which might be compared, for instance, with the aids to navigation supplied by the Department of Transport. They recommend that pilotage should be furnished on the most economical basis and to all ports without discrimination.

Pilotage duties may be performed in either coastal or harbour waters. Coastal pilotage presents few difficulties in fine weather but is hazardous when the weather is adverse—especially during fog. Pilots are then called upon to make many decisions which must be based on skill, experience and local knowledge. In most B.C. harbours, there is sufficient depth of water but strong tidal currents, frequent obstructions, and restricted space present constant problems.

Few ships without pilots have become casualties but this is due, in the opinion of the pilots themselves, to the fact that only a small number of ocean-going vessels attempt to ply B.C. waters without a pilot⁸.

Before certain coastal voyages are undertaken, the Master, ship's agent or owner must decide whether to take the outside or inside passage. The outside passage is longer but pilotage charges are less because pilotage service is required for only a comparatively small portion of the trip. The inside passage is shorter and safer in all weathers but, since the whole route is through restricted waters, two pilots must be employed to supply continuous pilotage service.

⁸ Reference was made to S.S. *Hermion* which ran aground on Barrett Rock August 16, 1961, while sailing to Prince Rupert in dense fog. The Master had signalled his E.T.A. but had specified that he did not require a pilot. After rounding Georgia Rock, the vessel somehow went inside Barrett Rock and grounded although Barrett Rock is marked by a flashing red light and has a foghorn sounding two blasts every 20 seconds. The vessel was refloated during the afternoon with the assistance of tugs; the repairs were then estimated at \$51,000. The vessel was equipped with radar and gyro. The Master refused to make any statement but when asked whether he had heard the foghorn replied that he thought the two blasts came from a ship stopped in the channel. Apparently the Master was also unaware of the strong tidal currents prevailing in that area.

Bridge aft ships have proved more difficult to handle than conventional ships but the pilots are confident that with practice they will gain the necessary experience. No accidents with this type of ship have occurred.

In the interest of safe navigation, the pilots recommend that any Master not familiar with the coast should employ a pilot. While unfamiliarity with the English language may not present much difficulty, these Masters usually lack local knowledge and are unaware of the procedures normally followed by regular traders and pilots.

(2) COMPULSORY PAYMENT OF PILOTAGE DUES

From 1920 to 1929, the pilotage service in British Columbia—except for the New Westminster Pilotage District—was completely unregulated. There was no Pilotage Authority and pilots were not required to pass examinations or to obtain a licence, and anyone could offer his services as a pilot. There were no franchises, competition was open, and the rates consisted of whatever price the pilot could arrange with the Master.

As a result of Mr. Justice Morrison's Report in 1928, the pilotage service was reorganized under public control, but it was not until 1949 that the payment of pilotage dues was made compulsory. Otherwise, the organization was very similar to what exists now: pilots were licensed and despatched by the Pilotage Authority on a roster system, tariffs were established by the Authority, and pilotage revenues were pooled.

In 1947, a survey was made by the Assistant Superintendent of Nautical Services, Department of Transport, and as a result of his recommendations, which were concurred in by the pilots and by the Vancouver Chamber of Shipping, a provision was inserted in the General By-laws of the District (P.C. 1618 of April 14, 1949) purporting to re-establish the compulsory payment of pilotage dues in British Columbia.

The main reasons advanced at the Commission's hearing for this decision were:

- (a) to protect the interest of Canadian pilots by preventing U.S. pilots from operating illegally in Canadian waters;
- (b) to provide lower pilotage charges by spreading the cost and, at the same time, to assure the pilots of adequate remuneration;
- (c) to adopt the practice of most other Pilotage Districts in Canada;
- (d) to follow the regulations of most U.S. Pacific ports where pilotage dues are compulsory and particularly of the Puget Sound area where the Washington State Pilotage Act provides, *inter alia*:

"...Every vessel not so exempt, shall while navigating Puget Sound and adjacent inland waters employ a pilot licensed under the provisions of this act and shall be liable for and pay pilotage dues as herein provided ..." (RCW 88.16.070) (Ex. 879);

- (e) to provide effective control of pilotage in British Columbia, thereby avoiding a possible reappearance of the free-lance system of pilotage that existed between 1920 and 1929.

It is worth noting that the safety of navigation was not one of the reasons that motivated the decision. Of all the reasons advanced, only (b) could have been a criterion for the imposition of the compulsory payment system (vide Report, Part I, C. 7, pp. 211 and ff.) if such was the factual situation. The evidence adduced before the Commission, however, indicates that during the period 1929 to 1949, almost all ocean-going vessels always took a pilot; this explains the practically disinterested attitude the Vancouver Chamber of Shipping adopted toward the proposal. Reasons (c), (d) and (e) are not grounds that would justify the Crown's interference with the freedom of navigation.

This move was merely an expedient to give some kind of satisfaction to the pilots who were irked by the inability of the Pilotage Authority and the Department of Transport to take effective action to put an end to the practice of American pilots on board ships coming from an American port continuing piloting while in Canadian waters. The situation was complex. Contrary to what is stated in reason (a), it was quite legal for American pilots (as for any other person) to pilot during an inward voyage as long as they ceased to do so after a licensed pilot for the Pilotage District of British Columbia offered his services to the ship after she entered District waters. The governing provision of the Act then applicable was sec. 347, 1934 C.S.A. (now sec. 354, C.S.A.), the first part of which then read as follows:

"347. (1) Any person may, within any pilotage district for which he is not a licensed pilot, without subjecting himself or his employer to any penalty, pilot a ship,

- (a) when no licensed pilot for such district has offered to pilot such ship, or made a signal for that purpose, although the master of the ship has displayed and continued to display the signal for the pilot in this Part of this Act provided, whilst within the limits prescribed for that purpose; . . .".

The implementation of this provision would first have required the existence of such signal and there was none (vide Report, Part I, C. 3, pp. 60-62). This, however, was an obstacle which could easily have been overcome. The other obstacle was more serious. To enforce this provision, the pilots would have been obliged to keep watch over all the possible routes that ships might choose to enter District waters and be in a position to signal and meet the ships. This requirement was not capable of application in practice in the circumstances of the B.C. District at that time. This was, no doubt, one of the reasons which caused the 1956 amendment to this section, an amendment that is in conflict with the scheme of organization of Part VI C.S.A. (vide Report, Part I, C. 7, pp. 208 and 209).

The question was further complicated due to the fact that the Crown, as complainant, had the burden of proof and experience has shown that in such cases it is a major difficulty to produce the evidence necessary to support the charge.

With the compulsory payment system, the problem appeared to be solved in that all non-exempted ships were being charged pilotage dues, whether or not they employ a licensed pilot, thus discouraging the employment of persons unlicensed for the District because they had to be remunerated as well. Since then, the Pilotage Authority has successfully applied the compulsory payment system. It has not been challenged to date although (a) it is illegal because of faulty enactment (vide p. 6), and (b) it could not be applied to coastal pilotage in general and to the British Columbia District in particular.

The provisions of the C.S.A. governing the compulsory payment system are contained in subsec. 345(a) which extends an automatic exemption if, on an inward voyage, "no licensed pilot offers his services as a pilot after reasonable notice of expected time of arrival has been given". These provisions were devised for port pilotage with the result that it is a practical impossibility to enforce the system in a coastal pilotage area, because, *inter alia*:

- (a) In port pilotage, vessels on the inward voyage have to follow a definite route which can be easily observed by the pilots who have been alerted by E.T.A.'s. This is not the case in the British Columbia District because ships can enter District waters at many places along a six hundred-mile coastline.
- (b) The notice must state only port of arrival and E.T.A.; therefore, it can not be interpreted as meaning arrival at a district limit because the section deals with "every ship that navigates within any pilotage district". With port pilotage the port must be the destination and an E.T.A. gives sufficient information for a pilot to estimate when the ship may be expected at the port approaches. This section can not be construed as obliging vessels to disclose in their E.T.A. their point of entry into District waters and the time such entry is expected to be made. A notice giving an E.T.A. at a given port along the British Columbia coast can not provide the pilots with any useful information about when and where a ship will enter the District.
- (c) There is nothing in the Act, or in any other statute, authorizing the Pilotage Authority or any other authority, to oblige ships, for the purpose of enforcing the compulsory payment system, to detour from their intended routes to pass through a boarding area where pilots might be waiting. Hence, entry can be effected anywhere at a ship's discretion.

- (d) There is nothing in the Act, or in any other statute, that gives authority to a Pilotage Authority, or to any other authority, to establish a reasonable E.T.A. Automatic exemption is not lost if a Master has given a few hours' notice sufficient to announce arrival but insufficient to allow a pilot to meet a ship when it enters a District many miles away from her port of destination.

The Act is as silent as to the pilots' obligation to be available with regard to outward voyages and voyages within the District waters. It is clear that the Act presupposes the presence and availability of pilots in the port from where ships will depart. There, as well as on the inward voyage, it is up to the pilots to arrange to be available, given reasonable notice. Pilotage is a service and, therefore, a ship should never be delayed on account of the non-availability of pilots; the internal organization of the service is the Pilotage Authority's and the pilots' own concern and if, at any port, after reasonable notice of requirement, i.e., a few hours, a pilot can be made available, a ship would not be liable for compulsory payment if she sailed without a pilot.

Hence, in the British Columbia District, vessels may enter District waters wherever they choose and their only obligation is to give a few hours' notice of arrival at the port of destination. On outward voyages a similar notice of departure is required, and it is the pilots' responsibility to offer their services before ships leave. If, in any such instance, no pilot offers his services, the ship concerned is automatically exempted. This situation makes it a practical impossibility to enforce the compulsory payment system as provided in the present Act in coastal districts and, hence, in the British Columbia District.

Like other Authorities, the B.C. Pilotage Authority tried to extend the application of pilotage legislation through its By-laws, and of compulsory payment through the device of making the system applicable to vessels and by giving the term "vessel" a regulation definition to meet its needs. As pointed out in part one (vide Part I, C. 7, pp. 218 to 220), the ensuing provisions are *ultra vires* to the extent they are incompatible with the governing provisions of the Act.

(3) EXEMPTIONS

(a) *Exemptions by Legislation*

Very little use was made of the regulation-making powers available in the field of exemptions. No use was made of the powers conferred by sec. 347 C.S.A. with the result that none of the statutory relative exemptions of sec. 346 have been withdrawn or modified. Incomplete use was made of the

power conferred by subsec. 346(c) in that the By-Law provision concerned (subsec. 6(2)) extends small foreign ship exemptions to pleasure yachts only (vide Part I, C. 7, p. 227).

In British Columbia, the need for additional revenue was doubtless not such as to warrant the withdrawal of any of the relative exemptions granted to the coastal trade under subsec. 346(e), as was done, for instance, by the Halifax and Sydney Pilotage Authorities.

One result is that a British or Canadian steamship trading between a B.C. port and an American port is legally exempt, whether or not the Master has local knowledge, by virtue of subsec. 346(e) which exempts

“steamships registered in any part of Her Majesty’s dominions

- (iv) employed in voyages between any port in the Province of British Columbia, and the port of San Francisco, or any port of the United States of America on the Pacific, north of San Francisco, and between any port in the Province of British Columbia and any port in Alaska”.

However, an American vessel engaged in the same voyages or even merely passing through the District waters in transit between a U.S. Pacific port and a port in Alaska, even though in the last case the vessel does not call at any B.C. port *en route*, is not exempt.

The 1960 General By-Law indirectly provided an exemption for scows through the combined effect of subsec. 2(h), subsec. 2(k) and sec. 6 because scows were specifically excluded from the meaning of “vessel” as defined by regulation. The term “scow” was similarly defined by regulation but this definition was considered inadequate. According to a Department of Transport official, the definition in subsec. 2(h) of the By-Law that a scow means a barge with no living accommodation is unrealistic under modern conditions. One example quoted was an American barge carrying some 200 trailer vans, 53 cars, a helicopter and a large distilling apparatus which appeared on the Fraser River in 1963. The Department of Transport was of the opinion that such a vessel should obviously not be exempt. It was explained that the regulation definition was intended to apply to small barges such as small sand scows or open scows which have no living accommodation and are usually secured alongside a tugboat. The definition was worded to exclude the very large barges on the Great Lakes which have living accommodation on board and are steered as well. The Department of Transport stated that they planned to remedy the situation in B.C. by deleting from the By-Law definition of vessel the proviso for scows in the hope that only real scows would be exempted under subsec. 346(f) of the Act. This was done with the adoption of the 1965 General By-Law which does not contain a definition of “scow” nor the proviso concerning scows that previously appeared in the definition of “vessel”.

Whatever the regulations may be, scows and barges are excluded from the application of pilotage legislation because they are not ships. Hence, whatever their size, country of registry, destination or trade, they can not be compelled to pay pilotage dues and no Pilotage Authority has power to fix rates which determine the remuneration of pilots, if and when they are used. A further example is the barges towed by M.V. *Haida Brave* which was launched October 26, 1965. These barges are over 350 feet in length and carry 6,000 tons of newsprint; they run from Port Alberni to Long Beach, California, making three round trips per month.

(b) *De facto Exemptions*

In practice, additional unofficial exemptions are granted with the mutual consent of the pilots, shipping interests and Pilotage Authorities.

When the payment of pilotage dues was made compulsory in 1949, it was intimated to the pilots that the intention was not to place a "toll gate" across B.C. waters but rather to protect the pilots. Consideration had to be given to the treatment enjoyed by Canadian vessels in American waters, to existing agreements and to various other factors.

(i) *Small foreign ships*

Although subsec. 346(c) of the Canada Shipping Act permits all foreign vessels under 250 tons exemption from the payment of pilotage dues, provided this is authorized in District Regulations, subsec. 6(2) of the B.C. District By-law, as stated above, exempts pleasure yachts only. Despite this limitation, the practice is not to charge such vessels pilotage dues unless a pilot is employed. The resulting unofficial exemption benefits American vessels almost exclusively because small ships of other foreign nations do not sail in British Columbia waters. This practice is wholly illegal. The Pilotage Authority like anyone else is bound by existing legislation and no administrative discretion remains. It is also noted that the situation could easily have been corrected by a valid amendment to the By-law.

(ii) *Special cases*

Occasionally, an individual ship is not charged pilotage dues because the pilots felt there was a particular reason for exemption, e.g., the Chilean training ship *Presidente Pinto* (a former 4,100 ton U.S. attack transport) which called at Vancouver in the early 1950's; the Japanese Merchant Marine training bark *Nippon Maru*, which attended the B.C. Centennial celebrations in June 1958; and the four-masted training bark *Kaiwo Maru* which visited Vancouver June-July 1963.

The only legislative provisions which permit an administrative decision not to enforce compulsory payment in special cases is contained in subsec. 346(h) in which exemption is limited to ships of war and hospital ships of foreign nations (vide Report, Part I, C. 8, p. 298). Any other exception so

empowered is illegal. Furthermore, when pilotage services have been rendered a ship, a Pilotage Authority has no discretion to collect or not collect the dues, even if unanimous consent is obtained from the pilots. There are two reasons: in most cases, the dues do not belong, *in toto*, to the pilots; secondly, a pilotage claim is a public claim and a Pilotage Authority, as a Crown officer, has no authority to decide that in certain circumstances it will not make such a claim and will not collect. At present, authority for not collecting a pilotage claim (whether or not a pilot has been employed) must be obtained from the Governor in Council acting on a recommendation of the Treasury Board pursuant to sec. 22 of the Financial Administration Act (vide Part I, C. 6, pp. 199 and 200).

(iii) *Rosario Strait traffic*

After the Commission's hearings in British Columbia, an additional *ultra vires* exemption came to light: vessels sailing through Sand Heads from and to the United States ports of Bellingham, Ferndale and Anacortes are not charged dues when they do not take a pilot. This exemption arose in April 1962 when Sand Heads, at the request of the pilots, was withdrawn as a boarding station as a result of the Puget Sound dispute. The decision not to charge dues was the logical consequence of the discontinuation of Sand Heads as a regular B.C. District boarding station. Since a prerequisite to the enforcement of compulsory payment is that pilots offer their services, a boarding station must exist at the point of entry. No authority exists to force a vessel to embark a Canadian pilot in U.S.A. territory. Under the circumstances, the pilots agreed that the compulsory payment system should not apply to vessels using Rosario Strait but later, in a letter dated February 27, 1963, they charged that the practice was illegal (Ex. 1423). There has been no explanation why the matter was not mentioned at the Commission's hearing a few days later. The correspondence exchanged would indicate that only ships sailing to and from the Fraser River, and not to and from B.C. District ports, were to be exempt. This question is of no concern to the B.C. pilots because ships so sailing never enter B.C. District waters. However, the B.C. District Superintendent stated that, in practice, all vessels passing Sand Heads to and from the three American ports named above enjoy the unofficial exemption. In fact, the compulsory payment system can not be enforced on any ship sailing through Rosario Strait, whether or not she is bound for a B.C. District port.

(c) *Ships in Transit and Ferry Services Between a Puget Sound Port and a B.C. Pilotage District Port*

The compulsory payment system was imposed in the British Columbia District in 1949 as a result of negotiations between the B.C. pilots and the Vancouver Chamber of Shipping. In order to obtain the agreement of the shipping interests, the B.C. pilots had to concede that ships in transit and

ferry ships sailing between British Columbia ports and United States Puget Sound ports would not be affected. The agreement was reached March 10 when the Vancouver Chamber of Shipping gave approval to a document dated March 7 which had been signed by two members of the Pilots' Committee and approved by the Superintendent of Pilots for the B.C. Pilotage Authority. This document (Ex. 1159), which is referred to as the "Gentlemen's Agreement", reads as follows:

"At the request of the Chairman of the Pilots' Committee, now in consultation with the Department at Ottawa, and with the approval of the Pilotage Authority, the Pilots' Committee of the British Columbia Pilotage District offer to the Vancouver Chamber of Shipping the following undertaking.

In the event the institution of compulsory payment of pilotage dues within the B.C. Pilotage District be adopted and confirmed by By-law, this Committee, representing all the Pilots of the said District, undertakes neither to offer pilotage services to, nor to attempt to collect pilotage dues from vessels passing through British Columbia waters and not calling at a British Columbia port; nor to offer such service nor attempt the collection of pilotage dues from any recognized ferry service between British Columbia ports and United States Puget Sound ports.

This undertaking to apply also to all bona fide yachts not operated for commercial profit whether they enter British Columbia ports or not."

The Vancouver Chamber of Shipping insisted on such a commitment, first, because the enforcement of a compulsory system without such a proviso would merely have had the effect of forcing ships in transit to sail outside B.C. District waters with the result that, one way or another, the B.C. pilots would have gained no extra revenue while, at the same time, the ships involved would have experienced unnecessary inconvenience.

The Vancouver Chamber of Shipping demanded these exceptions mainly to avoid strained relations between the State of Washington and the Pilotage Authority of the British Columbia District, a situation which would have been detrimental to Canadian shipping interests.

The agreement was no more than partial reciprocity for the favoured treatment extended to all *bona fide* coastal vessels sailing in State of Washington waters. The pertinent section of the State of Washington, Puget Sound Pilotage Act (RCW 88.16.070) reads as follows (Ex. 879):

"All vessels under enrollment and all vessels engaged exclusively in the coasting trade on the west coast of the continental United States (including Alaska) and/or British Columbia shall be exempt from the provisions of this act unless a pilot licensed under this act be actually employed, in which case the pilotage dues provided for in this act shall apply."

However, no similar advantages were provided at the other American ports on the West Coast (except in Alaska which lacks pilotage legislation) where no exemption from compulsory pilotage is provided for foreign coastal traders, including Canadian vessels.

The Vancouver Chamber of Shipping contended that the problem was basically economic because the withdrawal of U.S. exemptions would have been a heavy burden for some Canadian shipping industries, e.g., ferries,

small freighters and tows, including a number of Vancouver tugs with contracts to tow cargoes of pulp chips in barges (3,500 tons each) in tandem from Tahsis to Puget Sound ports. All these vessels are exempt from pilotage dues while engaged in British Columbia-State of Washington trade in U.S. waters. The margin of profit of these Canadian operations was so small that the owners would have been in serious straits if they had been forced to pay American pilotage dues. At that time, there were far more Canadian vessels sailing to the Puget Sound ports than in recent years.

With this agreement, the Alaska Steamship Company vessels shuttling between Alaska ports and Seattle through the inside passage are not required to carry pilots or pay dues in British Columbia waters. Mr. K. C. Middleton, Chairman, Committee on Pilotage and Navigation, Vancouver Chamber of Shipping, informed the Commission that safety of navigation is not thereby endangered in that, in accordance with U.S. Regulations, such ships traversing these waters must have two men on the bridge, namely, an officer of the watch and an American pilot holding a manning certificate issued by the United States Coast Guard (not a Puget Sound pilot). D.O.T. officials agreed that when this unofficial exemption was granted to U.S. vessels in transit, no consideration was given to the problems of security and sovereignty.

The intention was that this agreement was to be reflected in pilotage legislation. During their negotiations, the Pilots' Committee and the Chamber of Shipping had drawn up a proposed amendment to the District General By-law concerning the compulsory payment of dues which, in the version dated December 18, 1948, contained the following proviso intended to implement the pilots' commitment (Ex. 92):

"Coastwise ships regularly trading from Puget Sound to Alaska and all Ferry Services to and from Canadian ports and any vessel using ports as points of refuge or shelter only are also exempted."

However, when on April 14, 1949, the compulsory system was purported to be imposed by an amendment to the General By-law (vide p. 6), the By-law amendment did not contain this proviso. No doubt it had been realized that the exemptions provided for in the gentlemen's agreement were not within the regulation-making power of the Pilotage Authority and that an amendment to the Act would be required, as was later done when subsec. (ee) was added to sec. 346 C.S.A. to solve a comparable situation on the St. Lawrence River and Seaway (vide Part I, C. 7, pp. 221-222).

Capt. F. S. Slocombe of the Department of Transport, whose survey was the origin of the B.C. compulsory system, stated it was fully realized that ships in transit should not be affected by such an obligation, since there was no need for it, and that the main reason for the reinstatement of the system was to prevent American pilots from depriving the B.C. pilots of assignments in ships destined for B.C. District ports. On the other hand, it was also realized that, if the compulsory system was imposed, there was no legal way under the statute to exclude ships in transit from its applica-

tion. It had been argued that the difficulty existed merely in theory because in practice the compulsory system could not be enforced upon these ships since they did not pass any boarding station on their regular route and there was no way of forcing them to enter a boarding area where a pilot could offer his services. However, this rationalization was deemed to be weak and the pilot's commitment was made a prerequisite to the reinstatement of the compulsory payment system.

From the legal point of view, such an agreement is completely void and of null effect as if it had never existed. No one is capable of binding himself by a private agreement either not to require the enforcement of, or not to take advantage of, legislation of a public character. It is also quite illegal on the part of Crown officers to agree beforehand not to give full effect to certain provisions of public legislation that is about to be enacted. By so doing, they substitute themselves for Parliament, which is a derogatory act.

In the course of the difficulties that ensued, it was suggested that a possible legal solution would have been to set a nominal pilotage charge under subsec. 329(h) C.S.A. following a supposed precedent established in the Saint John, N.B., District concerning an American ferry company which operated a coastal service between Saint John, Boston and New York (Ex. 1159). The proposal was not factually correct. The Saint John District By-law was not a precedent because it was in conformity with legislation then in force but later repealed (vide Part I, C. 7, pp. 225-226).

If the compulsory system had been legally imposed and pilots had been able to offer their services to all vessels as a matter of course, the obvious solution to the problem would have been to grant pilotage certificates to Masters and mates of regular traders who were able to prove their ability to navigate safely in District waters (vide Report, Part I, C. 7, p. 233).

For ships in transit, the agreement was to apply originally only to American ships in transit from and to Puget Sound ports but such a restriction is not contained in the written document. In practice, exemption is granted to all ships in transit without consideration of nationality whether or not the port of destination or arrival is situated outside Canadian territory. However, the Pilotage Authority has placed a restrictive interpretation on the *gentlemen's agreement* with the result that two cases at least have given rise to much contention: the Coastwise Lines Inc. case and the S.S. *Alaska* case.

Coastwise Lines Inc.—The compulsory payment system as modified by the *gentlemen's agreement* was soon attacked by an American shipping company, Coastwise Lines Inc., whose vessels, which had been plying between California ports and B.C. ports with an occasional call at Port Angeles, Wash., never took a B.C. pilot when in B.C. waters. Since these vessels were neither in transit in B.C. waters nor ferry ships plying regularly between a Puget Sound port and a B.C. port, they did not fall within the terms of the exceptions to that agreement and, therefore, were charged pilotage dues.

The company refused to pay, not because of the illegality of the compulsory system and the *gentlemen's agreement* but because the agreement discriminated against its ships which had been regular traders to B.C. ports prior to the imposition of the compulsory system. When clearance was withheld by Canadian Customs officials at the request of the Pilotage Authority (vide Part I, C. 6, pp. 196 and ff.), the shipping company paid under protest. The company applied to be included in the agreement but without success. It was refused on the grounds that a reciprocal exemption was not extended beyond Puget Sound ports to Canadian coastal ships calling at a California port.

Coastwise Lines Inc. challenged the legality of the agreement and received from the Director of Marine Services a letter dated March 5, 1954, which stressed that the *gentlemen's agreement* implied no official approval and that it could be said only

“these interested Bodies have seen fit mutually to agree to refrain from collecting compulsory payment of pilotage dues which have been duly authorized”.

The “interested Bodies” were not identified in the letter. The company took its case before the U.S. Congress pleading discrimination against U.S. vessels and urging that Canadian vessels be required to pay pilotage dues in all U.S. ports unless reciprocity was granted (Ex. 1159). The question was never settled and the matter was dropped when the plaintiff company suspended operations.

S.S. Alaska—The *S.S. Alaska* is a train ferry of foreign registry which, since 1964, has operated a year-round weekly ferry service between New Westminster, B.C., and Whittier, Alaska.

As a ferry, the agreement did not apply because the service was not with a Puget Sound port; as a ship in transit (which she is as far as the B.C. District is concerned), she should have been exempted, assuming the *gentlemen's agreement* was valid. However, the Pilotage Authority took the term “British Columbia” as used in the agreement to mean the Province (thus including the New Westminster District), and not the Pilotage District as indicated by the context.

However, when the Alaska Trainship Corporation began its train ferry service with *S.S. Alaska*, it was aware that, unless the ship was under Canadian registry, she could not be exempted. U.S. laws would not permit the *Alaska* to be registered in the U.S.A. because she had been built in Japan and was registered in Liberia; nor could a ship not registered in the U.S.A. ply between U.S. ports. Hence, the company had to find a base in Canada as close as possible to the U.S. border.

S.S. Alaska makes a round trip each week. She uses the inside passage which calls for two pilots, thus increasing expenses as well as the demand for pilots. The Superintendent of Pilots stated that the corporation employed pilots regularly in the early days of their operations but now does so only for its convenience.

The Alaska Trainship Corporation, in a letter dated February 10, 1965, addressed to this Commission (Ex. 1432(a)), protested against such a state of affairs pointing out that, although the ship is under Liberian registry, carries a Canadian crew and is merely in transit in B.C. Pilotage District waters, she is forced to pay pilotage dues to the B.C. Pilotage Authority for each transit (i.e., twice a week) in the amount of \$900 (at the 1965 rates) when no pilot is employed and, when pilots are employed, the bill is \$1,500 not counting the dues required by the New Westminster Pilotage Authority (slightly over \$100 per single trip). If the S.S. *Alaska's* southern terminal had been located just a few miles away, south of the border in the State of Washington, she would have qualified for an unofficial exemption under the agreement.

Aside from the question of the legality of the compulsory system in the B.C. District, this is a good example of the unfortunate consequences of legislation and policy made locally to meet local interests without consideration being given to Canadian interests at large. In this case, Government officials are discriminating against a Canadian port, New Westminster, in favour of American ports. Such a situation would not be allowed to continue if the Pilotage organization was under the general control of a Central Authority responsible for safeguarding and promoting the interests of the Canadian public and provided with the effective powers recommended by the Commission (vide Part I, C. 11, Recommendations 16 and 17).

(d) Recommendations Received re Exemptions

(i) Exemption for Prince Rupert

In the course of the Commission's hearings, the representative of the Prince Rupert Chamber of Commerce stated that the Chamber of Commerce would be in favour of the port of Prince Rupert being exempt from the compulsory payment of pilotage dues provided pilotage services are available.

(ii) Exemptions for regular traders

The *Vancouver Chamber of Shipping* advocated to the Commission that regular traders be exempted. It was argued that for many years prior to 1949 the shipping interests had obtained satisfactory pilotage services without compulsion. The decision to take a pilot was left to the company or the Master. They felt that, when a Master had made a particular trip five times, he had as much experience of the area as a pilot and his ship should not be liable for dues if he did not wish to employ a pilot.

They submitted that the Masters and mates of a few vessels on regular runs, such as those carrying grain to China or ore to Japan which call at brief intervals, may easily become well acquainted with a particular section of B.C. coastal waters but they concluded that the Masters of

tramp steamers which arrive infrequently can not expect to gain much experience of the area.

A ship in the former category is the 5161 NRT (17,254 GRT) Japanese ore carrier *Harriet Maru* which is on a regular four-week run between Wakayama, Japan, and Harriet Harbour⁹, Queen Charlotte Islands via Prince Rupert, the area Port of Entry. After four round trips to Harriet Harbour with a Canadian pilot, the Master felt that he had sufficient local knowledge to proceed on his own and he has dispensed with a Canadian pilot ever since. When he enters the Japanese port of Wakayama at the end of a voyage, he does not employ a Japanese pilot. In fact, the Master is of the opinion that he has the advantage in experience since he was served by a different pilot on each of the four trips to Harriet Harbour.

Correspondence filed as Exhibit 219 shows that the Japanese owner instructed his Vancouver agent that no pilot would be required on any trip between Triple Island, Prince Rupert and Harriet Harbour when Capt. Ohtatsume was in command and that the agent would be informed if a Master without experience of the area were in command. Under these circumstances, the owner felt that compulsory payment of pilotage dues was unreasonable. The *Harriet Maru* and another Japanese ship which sometimes calls at Harriet Harbour no longer employ pilots.

When either ship arrives from Japan, she is in ballast. She must first call at Prince Rupert which is the closest Port of Entry to Harriet Harbour. Returning loaded, she must again call at Prince Rupert for clearance. Only the approaches to both ports are in pilotage waters (vide p. 6). During the passage between Prince Rupert and Triple Island (Prince Rupert boarding station), navigation is under the direction of a pilot; between Triple Island and the entrance to Harriet Harbour, the Master takes over; the pilot then takes the ship into the harbour and berths her. For the return trip, there is no changeover of pilots because transportation facilities to and from the mainland are meagre. The pilot remains on board while the ship loads—an average of twenty hours for which a detention charge is made. On the return trip to Prince Rupert, he performs similar pilotage duties. It has been calculated that such an assignment takes from 57 to 64 hours of a pilot's time, beginning when he boards the pilot boat at Prince Rupert and ending when he disembarks from the pilot boat after completing the assignment at Prince Rupert. This does not take into account the time taken by the pilot to proceed from his base (Vancouver, Nanaimo or Victoria) to Prince Rupert and return, or the time spent at Prince Rupert

⁹ Harriet Harbour, on the southeastern coast of Moresby Island, Queen Charlotte Islands, was specially created to provide a shipping outlet for the iron ore mined by Jedway Iron Ore Ltd. for shipment to Japan in Japanese vessels built for the trade and operating on a regular schedule. *Harriet Maru* is in regular service on a five-year contract (from October 1962) to deliver ore and occasional additional cargoes are carried by other vessels. The Harriet Harbour case is not an isolated instance. For example, since 1966, there has been a similar large-scale operation centred around the development of an ore deposit at Tasu Harbour.

waiting for the ship to arrive. Of this total time, about nine or ten hours only are spent in actual pilotage duties, the run from Prince Rupert to Triple Island being counted as 3½ to 4 hours and entry to Harriet Harbour about one hour.

When a pilot is employed, such a round trip, e.g., February 22-24, 1963, cost the ship \$1,162.31 in pilotage dues at the pilotage rates prevailing that winter. These included pilot's travelling expenses \$103.40, detention \$127.05, and pilot boat charges \$120.00, i.e., \$350.45 for items other than direct payment for pilotage. This sum is the amount that a ship, such as the *Harriet Maru*, saves by not taking a pilot (re the legality of such a saving, vide Part I, C. 6, pp. 186 and ff.).

The principal navigational hazard in Harriet Harbour is the wind. During strong southerly gales, heavy squalls from the valley at its head may prevent ships from berthing or may force them to leave the harbour. Harriet Island must be passed with care and abnormal magnetic variation has been reported. Notices to Mariners and Notices to Shipping are provided regularly to the Master of the *Harriet Maru*. Future shipping traffic in Harriet Harbour will be limited by the amount of iron ore cargo available.

In 1963, *Crown Zellerbach Canada, Ltd.*, which sells a great percentage of its newsprint in California, had two ships on regular fortnightly round trips from Ocean Falls and Duncan Bay. *MacMillan, Bloedel and Powell River Ltd.* (now MacMillan, Bloedel Ltd.) has frequent sailings from Port Alberni and weekly sailings from Powell River to California of full cargoes of newsprint.

The Vancouver Chamber of Shipping considers the Masters of these ships and others on regular runs have sufficient local knowledge to warrant dispensing with pilots.

It was noted that Masters on these regular runs might be in a better position to become acquainted with a specified route than pilots who would have infrequent assignments to the comparatively small number of ships visiting some ports in the Northern Region.

Saguenay Shipping Limited, a subsidiary of the Aluminum Company of Canada, Limited, advocated a similar exemption for its ships on the grounds of both experience and the overall cost of their products. One of its former Masters, Capt. K. J. Loder, stated that he had called at Kitimat once as Master and four or five times as Chief Officer. He had also often been on board vessels sailing to and from Kitimat via McInnes Island. A pilot was always employed because it was the company's policy but, if the company had instructed him to dispense with a pilot, he would have felt quite capable of piloting the ship himself. In addition to his previous experience, he had the latest available information because tide tables and the reference book "British Columbia Pilot" were carried and Notices to Mariners were received by radio.

Saguenay Shipping Limited recommended the abolishment of the compulsory payment of pilotage dues with the retention of an organized pool of pilots to serve Masters who might require assistance.

The pilots observed that a Master does not necessarily acquire detailed knowledge of an area because generally he does not remain on the bridge. They concede that a Master can learn the details if he stays with the pilot for two or three trips but they feel that it is an imposition to ask the Master to spend an additional twelve hours on the bridge after bringing his ship in from sea.

The individual B.C. pilot has very infrequent experience with the navigation of northern waters. The internal organization of the service does not provide for a selected group of pilots for northern assignments; instead, a northern assignment roster is kept on which appear the names of all the B.C. pilots, with the result that some pilots may not have had an assignment to a given northern port, even Kitimat, for one, two or three years. Therefore, they have no opportunity to maintain their local practical knowledge and experience (vide Part I, C. 11, Recommendation 8, pp. 476-477).

(4) STATISTICS ON SHIPS PAYING DUES BUT NOT EMPLOYING PILOTS

Very few non-exempt ships did not employ a pilot in the B.C. Pilotage District during the period 1960-1962, but there has since been a considerable increase proportionally. This table shows the number of times non-exempt ships paid dues without taking a pilot on board, the number of times a pilot was employed, the compulsory payment revenues, and the percentage of the District gross earnings.

Year	Trips		Movages		Dues	
	Without Pilot	With Pilot	Without Pilot	With Pilot	Paid without Pilot	% of District Gross Earnings
1960.....	3	6468	1	1643	\$ 314.47	.03
1961.....	8	6629	0	1894	1,033.90	.08
1962.....	12*	6866	4	1803	468.48	.03
1963.....	41*	6873	12	2141	6,049.53	.42
1964.....	63*	7303	1	2322	12,545.08	.82
1965.....	118*	7147	9	2394	29,881.13	1.83
1966.....	167*	6885	10	2399	38,023.55	2.20
1967.....	202*	7387	16	2278	44,116.99	2.30

* These figures for trips without pilot from 1962-1967, which have been omitted from District financial reports since 1962, were obtained from sources considered reliable but their accuracy can not be checked. Since 1962, dues from ships which do not employ a pilot have not been paid separately into the Pension Fund and accurate records are no longer kept. The remaining data are official figures appearing in the annual financial statements of the District.

SOURCES OF INFORMATION: Exhibits 197-201 and 205; *Appendix B*.

3. ORGANIZATION

(1) PILOTAGE AUTHORITY

The Pilotage Authority for the British Columbia District is the Federal Minister of Transport (vide p. 6).

The District is administered locally by a Department of Transport official holding the civil service appointment of Regional Superintendent of Pilots and referred to in sec. 2 (1) of the District General By-law as the "Superintendent". He holds no formal appointment from the Pilotage Authority although he is its *de facto* representative. As D.O.T. representative, he is responsible for the equipment and premises that the Federal Government places at the disposal of the Pilotage Authorities and the pilots on the B.C. coast including the pilot boat service at Sand Heads, New Westminster Pilotage District. In Vancouver, he maintains a pilotage office which serves as the pilotage headquarters of the B.C. District.

Capt. F. N. Eddy was the Regional Superintendent in 1963. His Assistant, Capt. V. R. Covington, was called, for civil service establishment purposes, Supervisor of Pilots. There is no provision in the British Columbia District By-law for a Supervisor of Pilots; the term has no legal meaning because it is not defined either in the C.S.A. or any By-law or regulation pertaining to the British Columbia Pilotage District.

Capt. F. N. Eddy held this office from May 1st, 1953, until April 1, 1967. His experience on the B.C. Coast was extensive: from 1947 to 1953, he was a Steamship Inspector for the Department of Transport and, from 1917 to 1967, he was employed either at sea or in an occupation connected with the sea, mostly on the B.C. Coast, during which time he gained the high regard of both the pilots and the shipping interests.

In the District of British Columbia, as in all the main Districts, the Government has extended its control to the whole operation of the service, the pilots being *de facto* employees of the Authority which, in addition to granting licences and billing and collecting pilotage claims, is responsible for despatching the pilots and remunerating them through a pooling system.

It is the immediate responsibility of the Superintendent to enforce such control and to manage the District and the service. In the discharge of these functions, the Superintendent issues a large number of memoranda dealing with orders and information. Those which state policy or are of a permanent nature are entered in a Pilotage Memorandum Book. Many of these memoranda, especially those on technical subjects concerning pilotage, have been drawn up in consultation with the Pilots' Committee. A copy of each memorandum is sent to each pilot and he is required to acknowledge receipt. In order to bring important memoranda to the pilots' attention, they are mimeographed and a copy sent to every pilot, then posted on the notice-board, and posted in the Despatching Office if they have a particular local

significance, e.g., the depth of Kitimat approach channel, so that the despatcher may bring the information to the attention of the pilots assigned to that area. This routine was established because the Superintendent wishes to ensure that all pilots are supplied with up-to-date pilotage information even though they are dispersed throughout the District and seldom call at the Pilotage Office. It is also particularly important that the despatcher be in a position to provide pilots with the latest information and instructions about ports which they rarely visit.

The Superintendent maintains the Licence Register, accessible to the public, which contains the licence of each pilot in the District, as required by sec. 334 C.S.A., and also the separate Establishment Book, stipulated by sec. 19 of the By-law, which contains the professional record of each pilot. In addition, as a personal service to the pilots, he keeps for each pilot an individual file of all his personal records: income tax forms, medical reports, etc.

The staff of the Regional Superintendent's office has not been increased for twenty years and consequently is overworked. This explains why he could not spare the time to make the analysis that accompanies the financial statement (Ex. 205) fully detailed, complete and accurate; and why he could not undertake the research and studies that would have been needed to ascertain the actual workload of the pilots when they refused to co-operate by volunteering the information.

In his capacity as representative of the Pilotage Authority occasional difficulties arise because:

- (a) matters not expressly delegated to the Regional Superintendent through the By-law belong exclusively to the Pilotage Authority and must be referred to Ottawa for decision;
- (b) since the Pilotage Authority is the final authority, it may overrule any decision the Superintendent is authorized to make.

However, a vast amount of routine daily work is done locally.

(2) PILOTS' COMMITTEE

The Pilotage Authority is assisted locally by a Pilots' Committee and an Advisory Committee.

The Pilots' Committee is composed of five pilots elected annually by the pilots of the District. It is their "sole agent" in dealing with the Pilotage Authority (By-law, sec. 5) (vide Report, Part I, C. 4, p. 82).

This Committee is very active in the British Columbia Pilotage District because the Regional Superintendent consults it frequently (for details of Pilots' Committee, see pp. 74 and 75).

(3) ADVISORY COMMITTEE

In British Columbia, as in other Districts where the Minister is the Pilotage Authority, the Department of Transport formed a committee of representatives of the pilots and of the shipping interests with the Regional Superintendent of Pilots as Chairman. This Committee is called the Advisory Committee. In British Columbia, it consists of three representatives of the Pilots' Committee, three of the Vancouver Chamber of Shipping and the Superintendent of Pilots.

This Committee has no legal status; it is not provided for in any legislation, by-laws or regulations. Its meetings are informal, minutes are not kept officially, but notes of the proceedings are generally taken by one of the representatives of the Vancouver Chamber of Shipping.

Its function is to provide a forum for the parties interested in pilotage matters in order to bring to the Authority's attention all the facts and circumstances of any problem and to give the Authority, after full and open discussion, the benefit of its opinions and recommendations. This procedure was designed to enable the Authority to render a decision with full knowledge of the situation. The Committee has merely an advisory role and the Authority is not bound even by the unanimous opinion of those attending. The Authority can decide otherwise, mainly for reasons of public interest that might transcend the individual interests of the parties, and it can profit from the experience of other Districts.

However, the Advisory Committee has not lived up to expectations. Although it has worked well in some instances, it is not successful in dealing with contentious questions involving the personal interests of the members. When agreement is reached, the Pilotage Authority generally gives effect to the Committee's recommendations, but the Authority hesitates to rule on contentious points and prefers to wait in the hope that a compromise solution will be reached.

Controversy between pilots and the shipping interests has caused ill-feeling and complications, and even disruption of the pilotage service, as was the case during the Puget Sound dispute in 1961.

The Vancouver Chamber of Shipping objected that the Advisory Committee has degenerated into a kind of conciliation forum, with the Pilotage Authority acting merely as mediator. The result is that the Authority does not exercise authority and administers the District simply by compromise.

At the time of the Commission's hearings in March 1963, the Advisory Committee was discussing proposed amendments to the By-law including a new tariff. Agreement had been reached on some items, one of which concerned detention. The practice has been for the Pilotage Authority to give effect to agreements on individual items as soon as they are reached and before they became law through regulations. It is hoped, thereby, to accommodate the parties and to avoid a multiplicity of single amendments so

that a comprehensive amendment need be made only when sufficient items have been agreed upon. Such an illegal practice is indicative of the wrong concept the Pilotage Authority holds of its functions and powers, and of the character of a pilotage service controlled by Part VI of the Act.

(4) RECOMMENDATION ON DISTRICT ADMINISTRATION

Administration in the British Columbia Pilotage District has, on the whole, functioned smoothly and satisfactorily and the Pilotage Office has been commended for its efficiency both by the Pilots' Committee and by the Vancouver Chamber of Shipping. Neither body, however, has an equally favourable opinion of the structure and procedures of the Pilotage Authority and its staff in Ottawa. The effectiveness of procedures in the British Columbia District may be due less to the merits of the organization itself and more to the qualifications and personality of the Superintendent and his staff who, the evidence shows, have often made special efforts to help the pilots, to consult all parties, to arrange negotiations and to adjust difficult problems.

In addition to general dissatisfaction with the Authority in Ottawa, there are specific complaints about:

- (a) delays due to the necessity for the Superintendent to refer to Ottawa for decisions;
- (b) confusion arising when decisions are taken in Ottawa without consulting the Superintendent or when they are contrary to his recommendations;
- (c) the limited power of decision of departmental officials and even of the Minister himself.

The Vancouver Chamber of Shipping reported that, in their experience, the Regional Superintendent and his staff deal promptly and efficiently with matters that can be handled locally but that the procedures are difficult and clumsy for those matters that have to be referred to Ottawa for decisions.

Because the Superintendent has not any final authority on any matter, it has been the practice for the pilots, and the shipping interests as well, to appeal to the Authority in Ottawa whenever they are displeased with a decision of the Superintendent.

Whether the Ottawa headquarters is confronted with a question because the case was referred for decision by the Superintendent or because one party seeks the reversal of the Superintendent's decision, the parties feel obliged to proceed to Ottawa to see the various officials concerned to present their case. It is a common occurrence for the pilots to send their representatives to Ottawa at great expense and many such trips may be required until a case reaches the Minister, the final authority. This procedure has been a serious cause of frustration for all concerned.

The pilots pointed out that decisions taken in Ottawa against the Regional Superintendent's advice cause administrative and operational difficulties because the Ottawa officials lack detailed knowledge about local conditions and requirements. For instance, a few years ago the pilotage service was seriously disrupted when, on orders from Ottawa, the practice that had been followed for over twenty-five years by the Victoria pilot station of sending wireless requests for E.T.A.'s to incoming ships was discontinued by Ottawa as an austerity measure without consulting the Regional Superintendent. The pilot service was thrown into such confusion that the procedure had to be re-established.

On another occasion, a strictly local problem arose regarding the collection of money earned by the pilots for embarking and disembarking outside the District. Since the By-law in force at that time did not provide for such services, the pilots had to make arrangements with Ottawa for the Superintendent to be authorized to make the collection.

Another example was the problem of giving effect to changes requested by the Pilots' Committee in their leave system—changes which were not authorized by the By-law. It would appear that eventually the Superintendent took it upon himself to accept their proposal without reference to the Department.

The pilots' complaint is that too many people are concerned with pilotage and everyone is responsible to somebody higher. Whenever a group is dissatisfied with a decision taken locally, it seeks to obtain a reversal by the Minister, knowing that the Minister is the final authority. More often than not, the Minister can not be seen and the problem is referred to departmental officials. There is no guarantee, however, that their decisions will be accepted by the Minister as Pilotage Authority.

When decisions overriding the Superintendent's decisions are taken in Ottawa, his authority is undermined and confusion is occasionally created. This problem is not peculiar to British Columbia but is common to all Districts where the Minister is the Pilotage Authority. Gradually, Regional Superintendents and District Supervisors have come to a private understanding with the officials of the Department of Transport in Ottawa that they will consult with them on any matter of policy before making a decision. The departmental officials in Ottawa have prompted this kind of understanding with the local representatives so that the latter can rely on departmental support.

The pilots complain that the Department of Transport is suspicious of them and thinks that the sole motive for their requests is to exact more revenue. They feel that the Department is unwilling to approve increases and, hence, most of their proposed amendments to the By-law have been refused. The Department points out that a decision must be made by the Pilotage Authority who, in order to discharge this responsibility, has to know the circumstances, the facts and the reasons concerning the recommendation.

They point out that it would be easier always to agree with all the pilots' proposals automatically but this would amount to a surrender and a denial of authority.

Both the pilots and the Vancouver Chamber of Shipping recommended that the pilotage service be disassociated from the direct responsibility of the Department of Transport and entrusted to a distinct organization or board especially created for this purpose. Furthermore, they unanimously recommended that the local representative, the Superintendent of Pilots, be given wider powers to enable him to settle all local problems.

4. PILOTS

(1) RECRUITING AND QUALIFICATIONS

District pilots are recruited from mariners most conversant with local navigation, i.e., Master Mariners serving in the coastal trade of British Columbia. There is no established system of apprenticeship and, as reported, none is likely to be considered by the authorities as long as the B.C. coastal trade continues to be a ready source of candidates for the pilotage service. The satisfactory record of the District pilots is *prima facie* evidence that the existing method of recruitment is working well.

(a) *Conditions of Admission*

As for *general qualifications*, subsec. 15(f) of the General By-law requires that a candidate "holds a certificate of competency endorsed for radar simulator, not lower than that of master of a home trade tug boat".

This provision prompts the following remarks:

- (i) Following the principle of interpretation that different words in legislation should be interpreted to mean different things, the expression "tug boat" should not be used because, according to subsec. 116(4)(d) of the C.S.A., a home-trade certificate may be granted, *inter alia*, for "tug", but there is no such class as "tug boat".
- (ii) A certificate for "tug" is the lowest class that may be granted to a Master home trade for a vessel which is not a sailing ship.
- (iii) The endorsement for radar simulator is a new and realistic requirement that was added in 1965. However, it is considered that for such an essential aid to navigation this requirement is still insufficient and that the endorsement should be for radar observer qualification in addition to radar simulator.

As for *local qualifications*, actual experience in the navigation of vessels in District waters is a prerequisite. Subsec. 15(g) of the By-law requires that a candidate "has served on a Canadian vessel engaged in the coastal trade of British Columbia" either three years as Master or as

Master for a lesser period, not less than one year, plus sufficient time as Chief Officer or "as a first mate on a vessel required by law to carry a certificated mate" counting half to reach the required total.

This provision of the By-law prompts the following remarks:

- (i) The requirement that service must have been on board a Canadian vessel is an illegal and discriminatory condition which bears no relation to the degree of qualification of the candidate and, therefore, does not come within the ambit of the regulations that may be made under subsec. 329(a) C.S.A. (vide Part I, C. 8, p. 251).
- (ii) No minimum is placed on the size or class of ship in which experience must be gained except as first mate.
- (iii) The term "Chief Officer" is meaningless because such a function on board ships is not recognized by the Act. If the term acquires a special meaning in a local context, it should be made the object of a legislative definition in the interpretation section of the regulations.

Other important requirements are that an applicant must be between 35 and 50 years of age, meet certain medical standards, and have successfully passed before a Board of Examiners an examination on the required general and local knowledge for safe navigation in District waters.

The Superintendent maintains a list of eligible candidates, i.e., those who have successfully passed the pilot admission examination. As soon as a vacancy occurs in the authorized establishment of pilots, the first available man on the list is called into the pilotage service and duly licensed as a pilot. When the list is exhausted, the Superintendent, with the approval of the Pilotage Authority, invites applications and arranges for an examination. A public notice to that effect is published in the press and copies of the notice are sent to interested groups such as the Canadian Merchant Service Guild.

(b) Board of Examiners

For the composition of the Board of Examiners (see By-law, Sec. 16) and the legality of the delegation of power to the Board so composed, reference is made to Part I, C. 8, p. 296.

The Superintendent reported that pilots take an interest in the composition and proceedings of the Board; they are proud of their own reputation as pilots and are anxious to see that only those candidates who have the necessary qualifications are accepted into their group. This interest is reflected in the appointments made by the pilots of their two representatives on the Board of Examiners; they see that these nominees are not only proficient in their occupation, but also skilful in the examination of candidates. The appointment of the Master Mariner member (usually a retired officer) is arranged by the Superintendent after consultation with the

Vancouver Chamber of Shipping. The nominee represents the shipping interests and ensures that any points or questions pertaining to the duties of pilot which the Chamber considers of importance are included in the examination.

(c) Examination

Applications are first checked to ensure that the candidates have the basic qualifications. Each candidate is then put through both written and oral examinations on subject matters specified in the By-law (sec. 17).

For the written tests there are:

- (i) a paper on navigation prepared by a Department of Transport Examiner of Masters and mates;
- (ii) a paper on general pilotage knowledge prepared by the Superintendent and approved by the Board of Examiners;
- (iii) a correction of a chart. This test is probably unique. Different parts of the B.C. Coast are traced from a Canadian hydrographic chart with eight to twelve dangerous areas or aids to navigation deliberately omitted;

It has been found that many of the candidates make an almost perfect reproduction of the chart. These so-called "shift tests" are done in order to determine whether the candidates do have the detailed knowledge of the coast they claim they have acquired from their actual coastal trade experience.

For the oral examinations, lasting about two to three hours each, the order of appearance of the candidates before the Board of Examiners is determined by lot. The candidates' knowledge of the B.C. Coast is tested once more. This is an important part of the whole examination. The candidates are instructed to assume they are piloting a vessel of a certain size, under given conditions; they are given charts but are expected to know the tides and currents; they are asked to lay off courses and pilot the vessel through certain areas on the charts.

When the examinations are concluded, the Board convenes to discuss the results and prepares notes. The marks of all tests are totalled and averaged (tests on eyesight, hearing and rule of the road are passed or failed only). The successful candidates are placed on the eligibility list in order of merit. Seventy per cent is the minimum percentage required to pass. In the examination held in 1963, 11 out of 20 candidates were successful. In the examination held two years earlier, only 5 out of 29 were successful and are now serving as pilots.

Until the successful candidates are called into the pilotage service they must continue to serve in the coastal trade of British Columbia; otherwise, they would have to be re-examined. Up to the time of the Commission's hearings in Vancouver, such a re-examination had never been required.

Since the examination will stress detailed knowledge of many harbours in the District, experience in the B.C. coastal trade is essential. This explains why the District By-law stipulates that the candidate must hold "a certificate of competency not lower than that of master of a home trade tug boat" and why the opinion was expressed that one of the best ways to acquire knowledge of the coast is to command a tug. In fact, this was borne out by the evidence: particulars showing the past sea experience of the 66 pilots on strength in 1963 (entered into the Commission's records as Exhibit 215) indicate that 52 had their basic experience in the coastal trade, mostly in tugs, that 9 had experience in tugs only, and that 5 had been Master or Chief Officer of a foreign-going vessel only.

(d) *Alleged Discrimination against Deep-water Officers*

Both the pilots and the Vancouver Chamber of Shipping expressed satisfaction with the fairness of the examination under the chairmanship of the Superintendent. However, while no one questioned the qualifications of the pilots as ascertained by this method, the Vancouver Chamber of Shipping expressed the view that the candidates' experience in manœuvring large passenger vessels, cargo ships and tankers was often negligible. The Chamber also claimed that the present By-law requirements for service on the B.C. Coast with the further stipulation of having command of a vessel on the coast were too restrictive, practically barring *deep-water officers* from the pilotage service. The Chamber, therefore, recommended that provisions be made in the By-law for training applicant-pilots in manœuvring deep-sea ships before they become pilots and that the existing admission requirements be modified so that foreign-going Masters and Chief Officers have a better opportunity to qualify as pilots.

It is the opinion of the Chamber that a Master Mariner with an unlimited certificate should be able to qualify as a candidate for the pilotage service by familiarizing himself with the coast of B.C. without spending eight or ten years in the process. He has the advantage over most coastal Masters of being qualified to handle ships of very large size and, with his background and knowledge, he should be able to familiarize himself in a comparatively short time as Master or mate of a coastal vessel.

The Chamber conceded that an ocean-going Master must have adequate experience in coastal waters in order to become proficient, but pointed out that this experience could be readily obtained. The Philippine Islands were cited as an example of coastal waters, as intricate as those of British Columbia, where only harbour pilots are available and where deep-water Masters have to navigate without pilots through the passages between many islands.

The pilots contended that an ocean-going Master would take longer than a coastal Master to acquire the necessary local knowledge because the coastal Master is accustomed to headlands and narrow channels. It is the pilots' view

that the principal concern of a pilot is not ship-handling but coastal pilotage and that the most important qualification of a candidate is his experience on the B.C. coast regardless of his certificate.

(e) *Licensing and Control*

When a pilot is called to the pilotage service, he is granted a one-year probationary licence, provided he passes the necessary medical examination (re legality and advisability of probationary licence, vide Part I, C. 8, pp. 269-270). The By-law is silent about the terms and conditions of the probationary year beyond stating that at its expiration a suitability report from the Superintendent is a prerequisite to the issuance of a permanent licence. In 1963, the practice was for the probationer to spend one month becoming acquainted with the organization and its procedure, after which he was on his own. In that first month, the probationary pilot watches the other pilots and asks questions; during the first two weeks, he is sent throughout the District to watch other pilots manoeuvre and during the last two weeks he goes with another pilot to areas which he has selected himself.

At the request of the Superintendent, the pilots who have been with the probationer report on his ability but all pilots continue to watch him during his probationary year. A few weeks before the end of the probationary year, the Superintendent writes to the Pilots' Committee asking for their comments. If these are favourable, the Superintendent recommends to the Pilotage Authority that a permanent licence be issued.

Here again, although there is no provision for a grade system in the By-law, during a pilot's first five years—including his probationary year—he is limited to vessels under 20,000 tons and is not allowed to take a heavily loaded ship through the Second Narrows bridge in Vancouver Harbour. Similarly, pilots with less than ten years' experience are not assigned to passenger ships and only highly experienced pilots are selected for particularly difficult assignments.

These restrictions are placed by the Regional Superintendent in the normal discharge of his responsibility under the By-law when assigning pilots to duty (sec. 23), although the Superintendent usually seeks the recommendations of the Pilots' Committee for any departure from the regular tour de rôle procedure. The Superintendent reported that the Pilots' Committee had always co-operated with him in this regard, especially when advising which pilots should be selected for particularly difficult assignments and that, because of this excellent co-operation, it had never been felt necessary to establish a grade system.

The pilots testified that the rigid controls exercised over their professional qualifications and conditions of employment are not objectionable to them and that the Government should not relinquish them. At the same time, they were of the opinion that these controls should be accompanied by some privileges, such as a guarantee of employment.

COMMENTS

Of the many methods that may be adopted for the recruiting and training of pilot candidates, the choice should fall on the system that is most suitable in the local circumstances to provide the qualified mariners who possess the highest degree of local knowledge and experience in local navigation.

A pilot must first be a mariner qualified in the handling of the ship to which he is assigned. This does not mean that he should possess the marine certificate of competency that would allow him to be Master or mate of the largest ship to which he may be assigned. He will never take over the ship as Master but only take charge of her navigation and, therefore, all that is required is for him to be competent in handling any ship to which he is assigned. Ship handling is, above all, a question of experience and training. This is why the Commission, in its General Recommendation 13 (vide Part I, C. 11, pp. 494-495), did not recommend as the lowest permissible minimum a certificate of competency higher than Master Home Trade or Master Inland Waters. On account of the nature of B.C. waters, the ultimate statutory minimum would, therefore, be Master Home Trade, tug (sec. 116 C.S.A.).

But such a minimum is not ideal and legislation should be so drafted as to result in the selection of those with the highest degree of qualification. For instance, if a survey of the pool of potential candidates indicates that a large number of them possess a higher certificate of competency, the recommended statutory minimum should be raised accordingly. Furthermore, consideration should be given to higher qualifications. This could be done in many ways, but a particularly attractive method is to allot a given number of points for each professional requirement. For instance, for general qualification, the holder of a foreign-going certificate of competency of the highest grade should be granted the maximum number of points allotted for that item, while the holder of the minimum admissible certificate should be granted none (or a lesser number, according to whatever computation system is devised). Similarly, for local experience, the system should be such that the most experienced are given a marked advantage, e.g., a candidate with ten years' coastal experience as Master should not be considered on an equal basis with a candidate who barely meets the minimum requirement for experience.

As for *expertise* in local knowledge and local navigation, this is also a qualification which is acquired by actual experience. Apprenticeship is a last resort which should not be adopted if a large number of qualified mariners possessing the necessary local qualifications are available. Thereafter, competency in ship handling could gradually be improved through a grade system based on experience and performance as pilot.

This does not constitute discrimination against a group of mariners but merely relates to convenience and higher qualifications in the special field of knowledge which qualifies mariners to be pilots.

Therefore, it is considered that the method of recruiting candidates in B.C. is realistic and adequate. The regulations should be changed, however, in order to reflect intent and practice, *inter alia*:

- (a) The minimum competency certificate should be fixed at the highest possible level, considering the potential candidates available, and precedence should be given to those possessing higher certificates.
- (b) The requirement for practical experience in coastal navigation should be further qualified by indicating the minimum class of vessel in which it may be gained and by requiring that it should extend to all District waters and not be limited to a given port. Again, precedence should be granted to candidates with greater local experience.
- (c) The grade system should be incorporated in the regulations and should be so devised that a higher classification is not granted automatically after a certain length of time but also depends on satisfactory performance in handling the largest ships the grade held allows.

There is also the consideration that a pilot should never be given an assignment for which he is not qualified or for which he may no longer be qualified for lack of continued experience. This is a problem that arises especially in large Districts (vide Commission's General Recommendation 8, Part I, C. 11, p. 477).

Complaints by shipping in this regard are well founded. It amounts to misrepresentation on the part of a Pilotage Authority to assign pilots to areas with which they are not thoroughly conversant and where they do not navigate regularly. Such assignments are a clear indication that a District is too large.

This is a question of public interest which transcends the private interests of the individual pilots. The organizational principle of equal sharing of assignments through a *tour de rôle* can apply only among pilots equally qualified for each individual assignment.

When, for practical reasons, a District can not be divided into separate Districts within which every individual pilot is given equal and adequate opportunity to maintain and improve his qualification over the whole of such District territory, the situation should be remedied through training and assigning a few selected pilots in sufficient numbers to meet the demand for such assignments, but not in excess of the required number, so that those so chosen have sufficient assignments to maintain their special qualifications.

Training of new pilots for such assignments could be effected by sending a second pilot as a trainee to accompany a pilot fully qualified for the given assignment, but without additional cost to the ship concerned.

(2) ORGANIZATION

From 1929 until their incorporation in early 1963, the B.C. District pilots were not formally organized in any association, although they were all individually members of the Canadian Merchant Service Guild in addition to being represented by their own Pilots' Committee established under the District By-law (sec. 5).

During most of that period, however, they met as a group informally in order to discuss their problems; during the last several years they even held monthly general meetings.

In February, 1963, the pilots were formally incorporated under the name of The Corporation of the British Columbia Coast Pilots.

(a) *Pilots' Committee*

In accordance with the By-law, the pilots annually elect five of their members to form the Pilots' Committee which is

"recognized by the Authority and by the pilots as the sole agent through which representations may be made in all matters affecting the pilots collectively or individually" (subsec. 5(5)).

The By-law does not provide for the mode of appointment of the Committee. The practice adopted is for the election to be effected by ballot sent through the mail to all pilots; the Committee subsequently chooses one of its five members as Chairman.

The Committee was reported to be working well and the Superintendent found that, from his point of view, it served a most useful purpose because, instead of having to deal with sixty-six individual pilots (in 1963), the Superintendent only had to deal with the five members of the Committee.

In one instance, consultation with the Pilots' Committee is mandatory. Section 4 of the By-law stipulates:

"The number of pilots shall be determined by the Authority after consultation with the Pilots' Committee".

An erroneous interpretation given by the pilots to this stipulation resulted in a controversy in October, 1961, when the Authority increased the number of pilots by two (Ex. 122). In a telegram to the Department of Transport, dated October 6, the pilots protested against the Authority's "unilateral decision... contravening By-law section four" and refused to accept the additional pilots until other matters under discussion had been settled. On October 11, the Department replied that the increase was warranted by the workload and pointed out that the consultation provided for in the By-law had been held at great length. In fact, long negotiations had been held between the pilots, the Vancouver Chamber of Shipping and the

Authority with regard to various points, including certain tariff modifications. The shipping interests refused to accede to the pilots' demands and in return the pilots declined to discuss an increase in the number of pilots unless it was accompanied by an increase in tariff. It was during this dispute that the pilots retaliated by ceasing to render the special service to shipping of boarding and disembarking outside the District, which resulted in the Puget Sound dispute, (see pp. 31 and 32). The pilots had misinterpreted the By-law stipulation which required only that the *advice* of the Pilots' Committee be sought, not its *approval*.

(b) *Pilots' Corporation*

On February 22, 1963, letters patent were issued under Part II of the federal Companies Act (1952 R.S.C. c. 53), creating "The Corporation of the British Columbia Coast Pilots" (Ex. 93). The aims of the Corporation are generally to promote and regulate, within the limits authorized by law, the practice of pilotage by its members, to undertake and pursue the study of questions of interest to the members, and to represent the members at meetings with governmental authorities, shipping companies and any other public or private bodies. (Vide also Part I, C. 4, pp. 93 and 94.)

As of 1964, all seventy pilots in the District were members of the Corporation but, according to the Corporation's General By-law No. 1 (Ex. 1166), pilots do not belong to the Corporation as of right since they have to be admitted by the Board of Directors. Moreover, a member may be suspended or even excluded from the Corporation by resolution either of the Board of Directors or of a general meeting for refusal to work or to abide by the By-laws and decisions of the Corporation. Thus, pilots do not automatically become members of the Corporation and, in theory, those who do not choose to seek admission do not become members. On the other hand, no regular member may resign as long as he remains in the practice of pilotage in the District; to that extent, membership in the Corporation may be said to be compulsory (vide Part I, C. 4, p. 90).

The five Directors of the Corporation are, by virtue of General By-law No. 1, the duly appointed members of the Pilots' Committee. The Directors select from their number a President and Vice-President, and appoint other officers as they see fit.

The Corporation has nothing to do with handling pilotage dues; this continues to be a responsibility of the Regional Superintendent who distributes the pilots' earnings directly to the individual pilots. The only monies the Corporation controls are the members' dues to the club fund which, in 1964, were set at \$7.50 per month. They have been increased substantially since then.

In practice, however, the Pilots' Committee continues to finance part of its activities out of the pool. This is considered quite irregular (vide p. 182). For an analysis of the Corporation's financial statements see p. 188.

(3) PILOTS' MEETINGS

Regular general meetings are held, usually in Vancouver, sometimes in Victoria. In order not to disrupt the service, there has never been a general meeting¹⁰ attended by all the pilots or even by a majority of the pilots. Notices of meetings are posted on Notice Boards and mailed to each pilot. Those who are not on duty usually attend with twenty or thirty being an average attendance. The Regional Superintendent does not attend, but the Pilots' Committee makes it a point to discuss with him any proposals from a meeting.

Several years before incorporation, the pilots adopted the practice of holding monthly general meetings. Since incorporation, the procedure remains the same but the meetings are conducted in a more business-like manner. The quorum is one-third of the members entitled to vote. No one may vote by proxy but a vote through a ballot sent by mail to each pilot may be taken if a poll is requested on a question of particular importance, such as proposals concerning expenditure of the pilots' money. In fact, the practice of taking a poll on important matters existed before incorporation. When this is done, ballots are mailed and counted at the next general meeting. The required majority is usually stated in the motion requesting a poll. In most instances, a two-thirds majority is stipulated because experience has shown that bare majorities are inconclusive and likely to cause friction. Proposals adopted in this manner, even though unanimity is not reached, are considered binding (in fact, if not in law) and have been implemented by the Superintendent on behalf of the Pilotage Authority, although sometimes they are contrary to the District By-law, e.g., those relating to annual leave and sick leave, or are even contrary to the provisions of the Act, e.g., the appropriation of compulsory pilotage money.

Generally, any subject dealing with pilots or pilotage may be discussed at a general meeting. Letters of complaint, if any, are usually the first items considered on the agenda. When indicated, a pilot's conduct is discussed and, at times, a pilot is ordered to appear before the Pilots' Committee for censure. The Pilots' Committee then reports on all its activities, including negotiations with such bodies as the Vancouver Chamber of Shipping. Proposed amendments to the By-law are studied. Other pilotage matters such as despatching, the suitability of tugs, improvements in privately-owned pilot boats, leave, sickness and accident insurance and the club fund may also be discussed and necessary action taken.

The minutes of the general meetings held in 1962 and 1963 prior to incorporation were made available to the Commission. Among the many matters discussed (and some of them several times) were the Puget Sound

¹⁰ On November 15, 1967, the B.C. pilots held a one-day study session, which in effect was a strike as a protest against the Pilotage Authority's decision not to grant in full the demand for a substantial increase in pilotage dues.

dispute; Sand Heads as a boarding station; refusal of a pilot to bring a vessel from Puget Sound owing to lack of suitable accommodation; pension arrangements; the two-pilot requirement for vessels sailing to Harriet Harbour and to Ocean Falls; new system of leave; incorporation; referral to the Pilots' Committee for censure of a pilot who had taken a "ship through the inside passage on his own"; increasing the amount allowed for incidental expenses and taking a poll on a proposal to increase the number of pilots.

(4) LEAVE OF ABSENCE

The question of leave of absence with pay, half pay and without pay is related to a system where pilots are either employees or quasi-employees. In the B.C. District, it presupposes control by the Pilotage Authority over the pilots' earnings and remuneration through a pool system. Under the present Act, the Pilotage Authority does not possess such powers; hence, these regulations—although required—are *ultra vires* (vide Part I, C. 4, pp. 73 and ff., and Comments p. 76, and C. 6, pp. 192 and ff.). The study and comments that follow are subject to that reservation.

According to the 1961 District By-law, which was in force at the time of the Commission's hearings (secs. 34 and 35), pilots were granted leave of absence on the following basis:

- (a) annual leave with pay at the rate of $2\frac{1}{2}$ days per month (30 days per year);
- (b) leave without pay not to exceed six months;
- (c) sick leave, a medical certificate being compulsory over six days, for:
 - (i) illness or injury off duty:
 - (A) with full pay (two months per year);
 - (B) with half pay (one additional month in the year);
 - (C) without pay (the remaining period of the year);
 - (ii) injury on duty:
 - (A) with full pay (six months);
 - (B) with half pay (six additional months);
 - (C) if, after one year, still unfit, retirement to be considered.

The foregoing was the *official* leave system; in practice, it was altogether different:

- (a) An additional thirty days of annual leave plus a six-day rest period per month, with full pay, were being taken by all pilots.
- (b) Sick leave, whether resulting from illness or injury incurred on duty or off duty, was granted with full pay, provided it was not in excess of two years. After two years' sick leave with full pay, the pilot's licence was cancelled if he was still unable to work.

Before the Second World War, the pilots had no days off except their annual leave and were always liable to be called. After the war, they decided to take four days a month to rest. When the Regional Superintendent took office in 1953, this rest period had gone up to six days. In 1958, it was increased to seven and a half days, or fifteen days off call every two months. In 1963, the pilots reverted to a six-day rest per month but added an extra month's annual leave, thus providing two annual leave periods of thirty days, one in the summer and one in the winter. However, the pilots informed the Superintendent that they would have no objection to pilots on unofficial leave being recalled if there were demands for their services.

In 1962, when the seven and a half day period was in effect, the Superintendent had approximately fifty pilots on duty at all times. As a result of the new system, the Superintendent had available for duty during the period January-March 1963 only forty-four pilots on call at all times, plus eleven more who were not on the normal roster and liable to be called.

In the opinion of the Superintendent, the pilots' idea of taking a second thirty-day period of leave was not sound; he would have preferred a monthly rest period of seven and a half days because rest between assignments is more important than leave. In addition, the thirty-day cumulative unofficial rest period presents a particular administrative difficulty in that a pilot who has so much time at his disposal may not remain in the vicinity and, hence, will not be available at short notice. Moreover, this practice tends to increase the workload of the pilots available for duty. However, despite the views of the Superintendent, the second thirty-day period of leave became official leave in the new General By-law of 1965. Nevertheless, the sick leave with pay period was also extended to three months. The extended sick leave and monthly rest periods have still not yet been recognized officially and, therefore, constitute an irregularity.

As a result of the leave system in force in the District, each pilot is off the assignment list or tour de rôle for a maximum of 120 days a year. During 60 of these, he is not on call and, during the remaining 60 days, he is subject to recall if he can be reached. In this regard, counsel for the pilots remarked that people in many other occupations have 121 days off each year: Saturdays and Sundays, seven statutory holidays, plus two weeks' annual leave.

At the time of the Commission's hearings, the new system had not been in effect long enough to give the Superintendent the opportunity to find out whether or not the demand for pilots would be, at times, such as to warrant recalling those on official leave. When the pilots had seven and a half days unofficial leave each month, his experience was that some had to be recalled during peak periods and, on one or two occasions, he had been forced to cancel all unofficial leave because the pilots available could not

handle the traffic. Since the new system was put in operation, effective January 1, 1963, he had not yet run out of pilots although he had been down to the last name on the list.

With regard to sick leave, the practice is to remove from the tour de rôle any pilot who is reported ill and to place his name on the "follow-up card". If he is still sick six days later, his doctor is asked to fill out a certificate of disability on a special form which is then forwarded to the Department of Transport in Ottawa.

The pilots are insured individually under a group disability insurance policy which provides \$125 per month for any member who is unable to work but, instead of paying this benefit to the pilot concerned, the money is put in the general pilotage fund as miscellaneous revenue and the sick or disabled pilot is considered—for the purpose of distributing earnings—as having been available for duty, and shares in the net revenues of the District as if he had not been ill, up to a maximum of two years. The insurance premiums are paid by the Superintendent on behalf of the pilots out of the net revenues of the District, i.e., out of the pilots' money.

(5) STATUS OF PILOTS

(a) *Pilots' Concept*

The pilots consider that their function is to pilot a ship to the best of their ability so as to take her to her destination safely; they also consider as part of their duties the berthing and unberthing of ships. They do not see themselves in command but believe that they are in charge of a ship's navigation from the time pilotage duties are required until she is berthed or anchored. In fact, Masters normally allow pilots to take over the navigation of their ships when sailing in pilotage waters. They will advise the pilot about their ship's peculiarities and may remain on the bridge but seldom countermand the pilot's orders. From the moment he takes over, the pilot gives helm orders directly to the helmsman and passes engine orders through the officer of the watch. The late Capt. W. A. Gosse testified that, in his twenty-six years of piloting, he had never been refused navigational control and was satisfied that pilots do more than offer advice—they actually take charge of navigation. (Re the status of the pilot on board, vide Part I, C. 2, pp. 22 and ff.)

The pilots consider themselves professional men as opposed to employees. The pilots believe that their functions differ considerably from, and should not be compared with, those of other occupations in that they are offering their services under varied conditions and subject to rigid federal control of their qualifications, licensing, conditions of employment, tariff, etc. They argue that they should not be treated as salaried employees enjoying a guaranteed level of earnings, security of employment and various benefits. They do not consider themselves employees of the Pilotage Authority

and give that as the reason why they would not co-operate with the Authority to define their workload. They believe that, not being employees, the number of hours they work is their own affair (vide p. 63).

The pilots consider themselves independent contractors operating under governmental control. They point out that they assume the risk of trade fluctuations because of changing economic conditions, they have to provide for their retirement years without the aid of contributions from the Government and they must make their own arrangements for their welfare needs (vide Part I, C. 4, *Comments* pp. 76 and ff., and p. 82).

The pilots believe that their franchise is related to the public service of transportation. The Government contributes largely to the maintenance of the pilotage service but the pilots do not view this as a contribution to themselves but rather as a subsidy to a public service and an aid to navigation which is, in turn, a subsidy to national trade and commerce.

Although the Federal Government has assumed most of their expenses, the District pilots pay for their office telephones and their own insurance and medical plans, the costs of which are deducted from their earnings by the Pilotage Authority. Believing themselves to be self-employed, they are not interested in fringe benefits or in the question whether there should be a ceiling placed on their earnings. As in other professions, they feel there should be no arbitrary limit on the amount they can earn.

In their Brief to this Commission, the British Columbia Coast pilots reported that several years ago a delegation of pilots from a number of Districts, including their own, met with a senior official of the Taxation Division of the Department of National Revenue in Ottawa and were informed that, after consideration by the department heads, it had been concluded that

"Pilots were contractors in that they had the contract to pilot ships in their separate Districts and they were given privileges and hemmed in by restrictions by the Government By-laws under which they operate".

This official is reported to have said that he did not altogether concur with this decision since he was of the opinion pilots were "concessionaires" (Ex. 80, Brief p. 7).

(b) *Vancouver Chamber of Shipping Concept*

The Vancouver Chamber of Shipping is of the opinion that pilots are employees of the Pilotage Authority and that they do not meet the definition of professional men such as lawyers and architects. Referring to the three hundred dollar statutory limitation of damages "occasioned by a pilot's neglect or want of skill" (subsec. 362(2) C.S.A.), the Chamber stated that shipowners and insurers would like to see it removed so that the pilot or the Authority could be sued in such cases. The Panama Canal Authority, which accepts full liability for damages incurred during a transit, was quoted as an example (Ex. 496).

On the other hand, the Chairman of the Vancouver Chamber of Shipping considered that pilots were, to a certain extent, ships' employees because the shipping interests "are paying the pilots' wages", and on that ground felt that, as a shipping representative, he should have a right to attend disciplinary inquiries.

(6) RESPONSIBILITY—CONDITIONS OF WORK

As elsewhere, the duties of the B.C. coast pilot demand a considerable degree of responsibility.

The pilot's responsibility extends not only to the safety of the ship herself, her passengers and/or cargo but also to the safety of other ships travelling the same waters and to the safety of port or harbour installations and shore communities. Since ships are becoming larger, faster and more costly, the pilot's responsibility is indeed a heavy one.

In this connection, it was pointed out that new ships, such as the Mariner class of fast American cargo ships, e.g., S.S. *Canada Mail* and S.S. *Washington Mail*, length 563.8 feet, 12,716 and 12,714 GRT respectively, speed 22 knots, cost 13 million dollars to build. During the winter of 1962-1963, the late Capt. W. A. Gosse piloted to sea two Greek freighters, S.S. *Sonic* and M.V. *Pharos*, one with the largest wheat cargo, the other with the largest lumber cargo on record in the world at that time. Also among the newer types of ships are those with the bridge aft; while the B.C. coast pilots do not find these vessels any more difficult to pilot, they encounter some problems in berthing them. The pilots state they can resolve these problems relatively easily provided they have available, and can use, all the tugs they need. As a rule, the shipping companies allow the pilots the number of tugs they ask for but, in some of the remote ports, such as ore ports, tugs are not available and, on occasion, have to be sent from Vancouver.

While ships are now generally better equipped with navigational aids such as radar, direction finder, echo sounder and gyro compass, pilots still find ships with only a magnetic compass. However, aids are only aids, and a ship cannot be navigated by them alone. Radar, for example, is a useful instrument but is sometimes unreliable because of distortion and, in any case, the pilot may require someone else to scan the radar in order that he may remain at his working position and maintain a look-out.

It is also the duty and responsibility of the pilot (By-law sec. 27) to report any violation of the law on the part of other vessels just as much as he is obligated to report any defect in the operation or the position of an aid to navigation. In this connection, the Regional Superintendent stated that several violations by tugs and tows in the First Narrows, such as coming in or going out on the wrong side of the channel, had been reported to him; he in turn reported them to the Harbour Master but was

unaware of what action, if any, had been taken. There were also instances of vessels dumping oil overboard in contravention of the Oil Pollution Prevention Regulations, reports of which were passed on to Steamship Inspection Services for investigation. Occasionally, the Superintendent had assisted the prosecution by having a pilot boat sent from Victoria or the Fraser River to take oil samples.

Another aspect of pilotage in British Columbia, which was mentioned by the B.C. coast pilots, is the considerable variation in the conditions under which they are called upon to work. In addition to handling various types and sizes of ships, their work is unevenly distributed throughout the year, is done mostly at night, involves peaks and lows, and sometimes requires them to be away from home for long periods.

Their work can also be hazardous. Ships often have to be boarded in open waters, e.g., off Cape Beale or Triple Island, an operation which may present considerable risk; two pilots were drowned a few years ago when making such an attempt. Pilots may also be exposed at times to disease-infected ships and may have to go through quarantine themselves, for they can not refuse to board ships in need of their services even if they are known to be infected.

With regard to accommodation provided for them on board, pilots pointed out that in some ships quarters are not clean and the food is poor and in others loading noises disturb their sleep while waiting in port. At Kitimat, they are also incommoded by alumina dust during the unloading process. According to present regulations, pilots are not obliged to remain on board while waiting in port and, accordingly, they often take hotel accommodation. In the southern part of the District, this expense is incurred by the pilots themselves but, in the Northern Region, it will be a charge against the ship. At Kitimat, for instance, pilots may be detained up to three days. In such a case, shipping companies prefer to accommodate pilots on board ship at a cost of approximately \$2.00 per day. In this connection, Saguenay Shipping Ltd. pointed out that they have a large number of modern 12,000 to 13,000-ton vessels on long term charter in which comfortable accommodation is available, although when two pilots are involved they may have to share the same cabin.

(7) ADMINISTRATIVE INQUIRIES, REAPPRAISAL AND DISCIPLINE

During recent years, disciplinary action has caused much dissatisfaction and argument, particularly in regard to the authority for its application. In the B.C. District, as elsewhere, no distinction is made between administrative inquiries, reappraisal, discipline, powers of the Minister as Pilotage Authority and powers of the Minister under Part VIII C.S.A. (vide Part I, C. 9, pp. 370 and ff., and pp. 397 and ff.).

At the time of the Commission's hearings in 1963, the Superintendent had no special power in any of these fields. Between 1939 and 1960, the By-law purported to give him limited disciplinary powers but these were withdrawn in 1960 and until they were reinstated in 1965 all disciplinary cases, no matter how minor, had to be decided by the Pilotage Authority in Ottawa. In order to correct this obviously excess centralization, sec 33 of the 1965 By-law purported to give the Superintendent jurisdiction in any disciplinary case, provided the accused pilot's consent was obtained, the Superintendent's power of punishment being limited to \$200. All other cases remained under the jurisdiction of the Pilotage Authority in Ottawa except that provision was made for an inquiry to be held in the District by a delegate of the Pilotage Authority. (Re the legality of the new system, vide Part I, C. 9, pp. 400 and 401).

The practice was for the Superintendent to carry out a personal and informal investigation whenever a reported casualty, incident or complaint did not appear at first glance to be of a serious nature. The main criterion to decide whether a shipping casualty was minor or not was the extent of damage or inconvenience.

When it appeared that a case was not serious, the Superintendent tried to verify the accuracy of the pilot's casualty report or the complaint received by interviewing the pilot, visiting the site of the occurrence and the ship(s) involved, and obtaining from the Master or any other witnesses whatever information they wished to volunteer.

The Superintendent did not allow anyone (not even the pilot) to accompany him or be present at interviews during his personal, informal investigation.

He then consulted the Pilots' Committee about the action that ought to be taken. If it appeared that the case was not founded or that it was so minor that disciplinary action was not indicated, and if the Pilots' Committee shared that view, no report was made to Ottawa and the case was dropped. However, when it was felt that the Ottawa headquarters should be informed or that some disciplinary measures should be taken, he forwarded the pilot's casualty report or the complaint to Ottawa and, in his covering letter, reported the result of his own personal inquiries and suggested any further course of action.

On the other hand, when it appeared from a casualty report that a shipping casualty was of a serious nature, no time was lost and the occurrence was reported immediately to Ottawa by telegram together with his recommendation for holding a Preliminary Inquiry.

All the Preliminary Inquiries held in the District were conducted by a Department of Transport officer; in no case was there any formal document appointing the investigator (Ex. 1450(d)).

When a breach of discipline was reported to him, he held a form of hearing. With the exception of the Pilots' Committee, third parties were not allowed to be present. He summoned the pilot concerned before him, invited the Pilots' Committee to attend, presented the pilot with all the evidence against him, and gave him the opportunity to defend himself. Then, in consultation with the Pilots' Committee, he decided whether the case was serious enough to warrant disciplinary action or whether it should be dropped. If the former, the Superintendent in his advisory capacity to the Pilotage Authority made a full report of the proceedings to Ottawa, including his opinion and that of the Pilots' Committee as to the pilot's guilt and, when applicable, the punishment considered appropriate in the circumstances.

Then the case was dealt with in Ottawa where, in the name of the Pilotage Authority, the pilot was found guilty or not guilty and, if the latter, was awarded punishment in the form of a reprimand, a fine, suspension or cancellation of his licence.

The Superintendent stated that the Pilots' Committee was generally inclined to be more severe than himself. The pilots as a group have always been very jealous of the reputation of their District, are anxious to maintain the highest standard of service, and consider discipline a necessity. In particular, they would not tolerate any of their fellow pilots indulging in alcohol and in case of a relapse would show no mercy and would urge that the offender's licence be cancelled.

During the five-year period 1960-1964, four Preliminary Inquiries were held but none was followed by either a Court of Formal Investigation or a Court of Inquiry under sec. 579 C.S.A. However, the grounding of the *Union Capitol* December 19, 1959, resulted later in the imposition by the Pilotage Authority of a punitive sanction of a one-month suspension of the pilot's licence (Ex. 1450(d)).

In order to bring the record up to date, the Commission obtained similar information for the three-year period 1965-1967. Re shipping casualties involving pilots, seven preliminary inquiries were held, one followed by a Formal Investigation (Ex. 1450 (d)).

- (i) *Hoyanger/Whitehurst*—a preliminary inquiry was held on the collision in dense fog between the Norwegian M.V. *Hoyanger* with a B.C. pilot on board and the U.S. Destroyer *Whitehurst*. This incident occurred in the vicinity of the Lion's Gate Bridge, Vancouver Harbour, on January 16, 1965. The pilot was found to be in no way responsible for the incident and no further action was necessary.
- (ii) *Olympic Palm*—a preliminary inquiry was held into the circumstances of the grounding of M.V. *Olympic Palm*. This vessel, under the conduct of a B.C. pilot, ran aground on the west coast of Orcas Island on April 1, 1965. The pilot was held responsible for

the grounding, offered no defense on receipt of a *show cause letter* and, in due course, was suspended for four months. (Re *show cause letter* procedure, vide Report Part I, C. 9, p. 417.)

- (iii) *Pacific Princess*—a preliminary inquiry into a collision between M.V. *Pacific Princess* and the wharf at Cowichan, Vancouver Island, on August 18, 1966, held that the B.C. pilot involved failed to manoeuvre his vessel safely while making an approach to the wharf. He was reprimanded for this failure by the British Columbia Pilotage Authority.
- (iv) *Rondeggen*—a preliminary inquiry was held regarding the grounding of the Norwegian M.V. *Rondeggen*. She ran aground just inside the harbour entrance of Ocean Falls, B.C., on August 16, 1966. The grounding was found to have resulted from steering gear failure and the B.C. pilot involved was in no way to blame. No further action was necessary.
- (v) *Hoegh Marlin*—a preliminary inquiry was held into the circumstances surrounding the grounding of the Norwegian M.V. *Hoegh Marlin* in Active Pass, B.C., on May 4, 1967. As a result of this inquiry, disciplinary action was instituted against the pilot, pursuant to the procedure laid down in sec. 33 of the General By-law, for his failure to exercise the utmost care and diligence in the safe conduct of the vessel.
- (vi) *Nichieri Maru/Glacier Queen*—a preliminary inquiry was held into the circumstances surrounding the collision, in dense fog, between the Canadian home trade passenger and cargo ship S.S. *Glacier Queen* and the Japanese M.V. *Nichieri Maru* which was under the conduct of a B.C. pilot at the time of the incident. This collision occurred off Cecil Patch near Prince Rupert, B.C., on June 9, 1967. As a result of the evidence obtained in this inquiry, a Court of Formal Investigation was held. The Court found that the probationary pilot who had the conduct of the *Nichieri Maru* was to blame in that he had erred in the course of action he had taken at the time of the collision. As a result, his probationary period was extended.
- (vii) *Ross Sea*—a preliminary inquiry was held into the circumstances surrounding the grounding of the Norwegian bulk carrier M.V. *Ross Sea* which was under the conduct of a B.C. Pilot. The vessel grounded off Cape Beale at the entrance to Barkley Sound, B.C., on December 29, 1967. As a result of evidence obtained in this inquiry, a pilot was charged under sec. 33 of the British Columbia Pilotage District General By-law for his failure to exercise the utmost care and diligence in the safe conduct of the vessel. An order suspending the pilot's licence for thirty days was issued April 22, 1968 (Ex. 1450(d)).

The record indicates that in the District of British Columbia the pilots' conduct is good. Between 1953 and 1963, disciplinary measures have been taken on only very few occasions. One pilot was fined for using abusive language to the Superintendent. Three reprimands were given at the request of the Department of Transport and were considered sufficient punishment for one minor stranding, one case of minor damage to a pier, and one border-line case of insobriety. There were three suspensions: two for indulgence in alcohol by the same pilot who was later allowed to resign, the third the *Union Capitol* case referred to earlier. In this third case, the Pilots' Committee disagreed with the findings of the Preliminary Inquiry. They did not have access to the report of the Investigating Officer but extracts from it were read to them. On the basis of such information and of their own personal knowledge of the case (no alcohol involved), they agreed that there was negligence on the part of the pilot and recommended that he be given a severe reprimand and, if the Pilotage Authority deemed it necessary, that he also be fined. The Regional Superintendent agreed with the Pilots' Committee and so advised the Pilotage Authority in Ottawa. The Pilotage Authority generally concurred with such recommendations but, in this case, suspended the pilot's licence for one month. Between 1963 and early 1968, disciplinary measures were taken in five of the seven cases where Preliminary Inquiries were held, as indicated earlier, and also in other cases. For example, in 1967, on three occasions following a minor shipping casualty the pilot was reprimanded (Ex. 213).

The suspension of a pilot's licence has a very reduced punitive effect in the District of British Columbia because the pilots carry group insurance to protect them against such a risk. For a monthly premium of \$3.53 per pilot, each pilot has a guaranteed indemnity of \$1,000 for each month of suspension or cancellation, plus \$8 per day subsistence allowance, for a maximum period of fifteen months, provided the loss of his licence did not result from wilful misconduct, lack of sobriety or criminal offence. These insurance benefits are paid directly to the pilot concerned and are not paid into the pool since while he is suspended he has no share in the pilots' earnings and receives no pilotage remuneration. Therefore, suspension of a licence has very little effect as a mode of punishment.

As seen earlier, the pilots as a group (on the occasion of their general meeting) assume the right to censure their fellow pilots. A pilot whose conduct is found to have been reprehensible is ordered by the meeting to appear before the Pilots' Committee for reprimand. It is unnecessary to demonstrate that the pilots do not possess any such powers. Although they act with the best of intentions, it is a practice that should be discontinued since no one has the right to substitute himself for the tribunals legally provided to enforce discipline, especially when there is a close connection with the person being disciplined and the necessary disinterested and unbiased position can not be maintained.

The Vancouver Chamber of Shipping complained that neither the owner of the ship involved nor his representative is allowed to attend any of the foregoing hearings. They argue that they should be allowed to attend hearings held by the Superintendent relating to discipline because they contend that the shipowner is the employer of the pilot since he pays his wages. They complain that they are not allowed to attend Preliminary Inquiries and they maintain that all interested parties should be entitled to attend. They argue that in practice the investigation does not progress beyond the preliminary fact-finding stage and, therefore, the shipowner has no means of ascertaining for his own benefit the facts of the case within a certain degree of accuracy.

The submission of the Vancouver Chamber of Shipping is the result of a misconception of both the status of a pilot and the purpose of the Preliminary Inquiry (vide Part I, C. 9, pp. 404-414). However, because of the rôle the Pilotage Authority has made them play through the Advisory Committee and because of the current misuse made of the information gathered at the Preliminary Inquiry by the Department of Transport and the Pilotage Authorities, it is quite understandable that the Vancouver Chamber of Shipping was completely confused (vide Part I, C. 9, pp. 414-428).

(8) EXTENT AND NATURE OF CASUALTIES INVOLVING PILOTS

During the seven year period 1961-1967, there were 153 so-called shipping casualties involving pilots. The annual reports claim this is an enviable record because it represents a relatively small proportion of the total pilotage assignments:

Year	Number of Shipping Casualties	Percentage of Total Assignments
1961.....	26	0.4
1962.....	29	0.4
1963.....	17	0.2
1964.....	15	0.2
1965.....	15	0.2
1966.....	9	0.1
1967.....	42	0.6

Such statistical information, however, may give a very distorted picture because of the meaning given to the term "shipping casualty" and the fact that no distinction is made between minor incidents and serious occurrences involving extensive damage and even loss of life.

Since safety of navigation is a matter of public interest, the Canada Shipping Act requires the senior officer aboard any vessel involved in a

shipping casualty to report for examination (sec. 553). In addition, the pilot—if there is one aboard—is obliged to file his report without delay with his Pilotage Authority. All these casualties are listed and to varying extent are the subject of investigation by the Department of Transport. This Commission is concerned only with those in which a pilot is involved.

At first sight, the term “shipping casualty” connotes something in the range of a major disaster but, in fact, it means much more although it does not include all marine accidents.

The term “shipping casualty” is defined in sec. 551 of the Canada Shipping Act. Leaving aside the question of territoriality, it means only:

- (a) loss of a ship;
- (b) abandonment of a ship;
- (c) stranding of a ship;
- (d) damage to a ship whether due to navigation or caused by another ship;
- (e) loss of life due to a casualty happening to or on board any ship.

It is to be noted that this definition does not include touching the bottom or damaging aids to navigation, wharf installations, etc., if a ship does not suffer any damage. On the other hand, whenever a ship is damaged, no matter how negligible the damage may be, it is a shipping casualty. Sec. 551 does not differentiate as earlier legislation did.

Sec. 551 has its origin in pre-Confederation legislation since the first part of sec. 1 of the 1869 “Act respecting inquiries and investigations into ship-wrecks, and other matters” (32-33 Vic. c. 38), is substantially and almost verbatim the present sec. 551 but stranding was not mentioned, and in case of a vessel being damaged, it had to be “materially damaged” for the accident to be classified as a shipping casualty. There was no change in this regard in sec. 4 of the 1886 *The Wrecks and Salvage Act* (49 Vic. c. 81) but the word “materially” was deleted from the 1901 *The Shipping Casualties Act* (1 Ed. VII c. 35) and “stranding” was added by a 1903 amendment (3 Ed. VII c. 64). In 1906, this legislation was incorporated in the Canada Shipping Act (R.S.C. 1906, c. 113, sec. 776) and the section has not been materially changed since.

Despite the definition in the statute, the term is actually given a wider meaning, with resultant misunderstanding.

Subsec. 27(1) of the B.C. District By-law requires a pilot to report where:

- “(a) a shipping casualty, within the meaning of section 551 of the Act, occurs to a vessel with a pilot on board,
- (b) any incident out of the ordinary occurs in connection with the navigation of a vessel with a pilot on board, or
- (c) any violation of the law on the part of other vessels is observed ...”.

The pilot has to make “a written report on the form provided for the purpose”. The only form that is so provided is entitled “Pilot’s Casualty Report Form”, and it is currently used to make any of these reports without distinction.

For statistical purposes, the term “shipping casualty” is used loosely to mean shipping casualties, accidents and incidents with the result that the meaning of the statistical figures can be quite misleading. For instance, for the year 1966 in the B.C. District, nine shipping casualties involving pilots are reported; in fact, only four of these can be technically classified as shipping casualties; the other five are either accidents, i.e., damage to wharf installations, or mere incidents in navigation.

For statistics to convey relevant information, casualties, accidents and incidents should first be classified in two main groups:

- (a) those happening in the course of navigation;
- (b) those happening in the course of berthing or unberthing, or at anchor.

The distinction has its importance for the safety of navigation because any incident, even minor, when a ship is underway, might result in the most serious consequences. On the other hand, when ships are manoeuvring to anchor or when they are berthing or unberthing, the circumstances are totally different: they are moving slowly, more often than not they are assisted by tugs and heavy damage is rare. It is not so much a question of safety of navigation as of efficiency of operation. These are by far the more frequent occurrences and, when entered as shipping casualties, they give the wrong impression and portray false, or at least inaccurate, information. Technically speaking, plates dented while berthing represent a shipping casualty but, from the point of view of safety, such an incident can not be compared with a collision between two vessels transiting a channel, even if very little damage results.

Accidents should also be segregated according to their gravity.

Shipping casualties are usually divided into major casualties, substantial casualties, and minor casualties which can be defined as follows:

- (a) Major casualty: Loss of life, total loss of vessel or vessels, constructive total loss of vessel or vessels (written off by underwriters), watertight integrity lost making the vessel unseaworthy and necessitating drydocking.
- (b) Substantial casualty: Heavy structural damage not affecting watertight integrity or seaworthiness but involving heavy financial outlay for repairs.
- (c) Minor casualty: Repairs involving little or no delay and not affecting a vessel’s seaworthiness.

Since the Commission did not possess the necessary information to apply these criteria, it was believed that for the purpose of this Report grouping in the following categories would be sufficient:

- (a) Major casualties—classified as cases involving loss or abandonment of a vessel, stranding with heavy damage to the vessel, damages to vessels exceeding \$50,000, and loss of life resulting from a shipping casualty.
- (b) Other casualties are classified as minor casualties.
- (c) Accidents—defined as cases when there was no damage to any ship and no loss of life but possible injuries to people, or damage to property, due to faulty navigation.
- (d) Minor occurrences out of the ordinary in connection with the navigation of a vessel, but without damage or injury to anyone, are called incidents.

Appendix D is a tabulation of all the so-called shipping casualties involving pilots that occurred between 1956 and 1967 inclusive. Furthermore, to further illustrate the table, a detailed analysis is given for the years 1965 and 1966.

With regard to damage to piers and wharves, the Regional Superintendent informed this Commission during its Vancouver hearings (March 1963) that he had made a recent survey of all the Vancouver wharves with representatives of the Pilots' Committee, The National Harbours Board and the Vancouver Chamber of Shipping, and had found that some were in need of repair and could easily be damaged by a ship making a normal approach. In support of this statement, the Superintendent subsequently submitted to the Commission a copy of a further survey dated September 3, 1964 (Ex. 1425) showing that several wharves were still in poor condition.

At the time of his testimony, the Superintendent lacked the opportunity and the time to visit the whole District and carry out similar surveys. He said that, as a result, he was at a disadvantage when he received a pilot's casualty report mentioning damage to a wharf and felt unable to determine whether the extent and nature of the damage warranted classification as major or minor, e.g., when the Texada Mines wharf at the northern end of Texada Island was struck on the night of September 30, 1963, while a ship was berthing with the result that the wharf, cat-walk and conveyor tower were completely destroyed. In this case, damage amounted to more than appeared on the pilot's report although it had been noted that the wharf was situated in an open roadstead with insecure footings. Because his staff was small and time was not available, the Superintendent was unable to visit Texada Island to make a personal survey. As in most cases of this kind, the ship sustained very minor damage.

It was also noted that in Vancouver Harbour wharves are not built to accommodate ships with large, flared bows. At the Columbia grain elevator, for instance, a ship has only six inches clearance between its spouts and the ship's bridge, and one degree of list will cause damage.

5. PILOTAGE OPERATIONS

(1) PILOT STATIONS

SITUATION

The term "pilot station" is neither defined nor used in the Act because the feature to which it refers is foreign to, and incompatible with, the free enterprise system on which the Act is based.

Pilot stations are a feature of the internal organization of a controlled service and are directly related to despatching pilots. Each one is a place or locality where a number of pilots are expected to be available at all times and from which they proceed to duty assignments. A pilot station becomes the home base of a pilot when he is attached to it; pilots become temporarily attached when they are temporarily transferred or when an assignment from their home base has brought them into the limits of another pilot station where, according to the administrative instructions of the District, they are obliged to remain while awaiting further instructions, i.e., generally a return assignment to their home base.

The number and location of pilot stations are governed by the requirements of the service and local conditions. The essential problem is to provide vessels with pilots anywhere in the District in the most efficient manner with the least possible inconvenience for both vessels and pilots, bearing in mind, however, that, since pilotage is a service, it should adjust within reason to the requirements of the users.

In the B.C. District, there are three pilot stations all located in the Southern Region, i.e., Vancouver, Victoria and Nanaimo. All the pilots of the District are attached to one of these three stations. When the Commission held its hearings in B.C. in March 1963, 37 of the 66 pilots then licensed in the District were stationed in Vancouver, 23 in Victoria and 6 in Nanaimo. In 1966, there were 74 pilots, 42 in Vancouver, 28 in Victoria and 4 in Nanaimo.

The headquarters in Vancouver is the main pilotage office and controls all despatching in the District. There is also an office in Victoria. The pilotage offices in Vancouver and Victoria are manned twenty-four hours a day and are linked by teletype. The official on duty at Victoria receives, acknowledges and records all teletype messages from the Vancouver office, informs the Victoria pilots of their assignments, and arranges for their pilot boats. At Nanaimo, however, the situation is different: there is no office and the pilots are reached directly at their homes by telephone from the Vancouver

office. Because Nanaimo is centrally located on Vancouver Island, it was selected as the most convenient place to station pilots in order to serve nearby ports, such as Port Alberni, Campbell River, Chemainus and Crofton. It was stated that this pilot station enabled the pilots to effect substantial savings in time and money.

There is no pilot station in the Northern Region. When pilotage was unorganized from 1920 to 1929, the pilot groups based in Vancouver maintained a resident pilot in Prince Rupert but the charges were double those for Vancouver. One of the recommendations of the Morrison Commission in 1928 was that a pilot station be maintained in Prince Rupert when the District was reactivated (vide p. 20). However, no pilot has been stationed in Prince Rupert since 1929 when pilotage was brought back under Government control.

The question has been under discussion for years. All agree that the pilotage service now provided at Prince Rupert and elsewhere in the Northern Region is generally satisfactory. The contentious points are not quality of service but, partly, the inconveniences resulting from the unavailability of a pilot on location and, principally, economics.

RECOMMENDATIONS RECEIVED

(a) *The Prince Rupert Chamber of Commerce*

With the support of the City Council, the Prince Rupert Chamber of Commerce advocated the establishment of a pilot station at Prince Rupert to take care of the increasing pilotage needs in Prince Rupert (including Porpoise Harbour and Watson Island) as well as to provide service to ships calling at other ports in the north.

The Chamber based its case on the need to develop shipping facilities and services in Prince Rupert so as to permit the port to play its full rôle in Canada's expanding trade with the Orient, stating that since Prince Rupert is Canada's nearest port to the Orient and is also the terminus of a trans-continental railway network, it appears to have a natural rôle for Pacific trade. The growing importance of the Northern Region and the favourable geographical location of Prince Rupert were demonstrated by the fact that the number of deep-sea ships entering Prince Rupert Harbour increased from a maximum of 50 per year before 1962 to 111 in 1964 (Ex. 141). However, the increase mainly involved vessels engaged in export shipments to Japan (lumber and iron ore) and China (grain).

It is the Chamber's view that a pilot residing in Prince Rupert could not only take care of local pilotage requirements but also provide service for ships in other north coast ports, e.g., Kitimat, Port Simpson, Stewart, Harriet Harbour and Tasu. Good charter aircraft service by both amphibian and land types is available to any of these ports.

(b) *Shipping Interests*

The shipping interests generally deplored the lack of a pilot station in the Northern Region. They gave the following as the principal reasons for their dissatisfaction with the present arrangements:

- (i) Most of the deep-sea ships calling at Prince Rupert and Watson Island approach the harbour from the north *via* Triple Island. In addition to the normal pilotage dues, these ships must pay the travelling expenses of the pilots who have to be despatched from one of the three pilot stations located in the Southern Region (By-law, Tariff Schedule, sec. 11).
- (ii) An abnormal advance notice must be given whenever the services of a pilot are required. The only adequate means of transport between Vancouver and Prince Rupert is by air. Since the air service operates only once daily (except Sunday), the pilot may have to be there one day ahead. Therefore, a ship's agent has to calculate the ETA at least two days in advance, calculations which are bound to be inaccurate since either the ship is at sea and could be delayed for many reasons or is in harbour loading or unloading, the duration of which may be affected by many factors that can not be appraised with accuracy long in advance. If a pilot was stationed and available at Prince Rupert, a shorter and more accurate ETA would suffice and this would reduce the pilots' travelling and incidental expenses.

Furthermore, the air service between Prince Rupert and the Southern Region is subject to disruption on account of adverse weather conditions. When this occurs, the ship is bound to be delayed unless it decides to proceed without the assistance of a pilot. However, when such interruption of the air service is expected, the pilot is sent one or two days in advance, provided the Vancouver office is then aware of the requirement for a pilot. In such a case, this means a substantial loss of the pilot's time.

- (iii) Whenever a vessel is in harbour loading or unloading, the Master or agent is always confronted with the difficult problem of deciding whether it is more economical to retain or dismiss the pilot (in some cases, two pilots).

(c) *Saguenay Shipping Limited*

Saguenay Shipping submitted that it was also interested in establishing a pilot station in the Northern Region but not at Prince Rupert. Most of the company vessels which call at Kitimat approach from the south, embark pilots off Cape Beale and proceed to Kitimat *via* McInnes Island. If these vessels were required to call at Triple Island to embark pilots, they would have to make a three hundred-mile detour. Very occasionally, vessels serving

Kitimat arrive from, or depart for, the Far East directly, in which case the northern approach *via* Triple Island is used. In 1962, for instance, there were only four such vessels, one inbound and three outbound. Saguenay Shipping, therefore, would prefer to see a pilot station established south of Prince Rupert at an intermediate place close to McInnes Island.

(d) *G. W. Nickerson Company Limited*

The President of G. W. Nickerson at Prince Rupert expressed views at variance with those held by the Prince Rupert Chamber of Commerce. In his opinion, the ocean shipping business at Prince Rupert is unlikely to develop in the foreseeable future to the point where the stationing of pilots at Prince Rupert would become necessary. He pointed out, in particular, that if arrangements were made to have customs entry and clearance procedures carried out at Harriet Harbour¹¹ for the Japanese ore carriers calling there monthly (arrangements which he thought might very well be made in the near future), Prince Rupert would lose a significant number of vessels that now have to call solely for customs purposes. He stated that he was satisfied with the existing system, noting that on only two occasions during the last few years the pilotage office in Vancouver was unable to provide pilots and, on these occasions, the Harbour Master at Prince Rupert supplied the necessary service himself without difficulty. Mr. Nickerson added: "Any fisherman can pilot a boat in here, but he can't dock her". He did not regard berthing as a normal responsibility of pilots. His suggestion is that the pilots in British Columbia be brought under the Civil Service and that all pilotage charges be made uniform in every part of the District.

(e) *B.C. District Pilots*

The District pilots' stand on the question is governed by one proviso, namely, a pilot station in Prince Rupert or elsewhere in the Northern Region must be financially self-supporting. Otherwise, because of the present system under which they are remunerated, the British Columbia District pilots would have to subsidize this station, a responsibility which they claim is not theirs. They stated, however, that if traffic in deep-sea vessels at Prince Rupert were to increase sufficiently to enable resident pilots to derive an adequate remuneration, their present objection to the stationing of pilots there would disappear. Similarly, their objection would disappear if the remuneration of pilots in their District were put on the basis of an acceptable guaranteed annual salary, assuming that all other working conditions were satisfactory.

In order to assess the financial aspects, the Regional Superintendent prepared an estimate (Ex. 131) of what a pilot resident in Prince Rupert would

¹¹ Early in 1968 it was reported that operations at Harriet Harbour would close during the year because ore reserves were running out.

have earned in the years 1962-1963-1964, based on the number of ocean-going vessels that entered Prince Rupert and Watson Island that year, assuming:

- (i) the resident pilot would not proceed outside Prince Rupert-Watson Island—Porpoise Harbour and their approaches, i.e., would take only ships coming from sea to harbour or proceeding to sea from harbour, the other vessels being piloted in and out of harbour by the pilot already on board when coming from another B.C. port or going to another B.C. port;
- (ii) an average pilotage charge of \$95 per trip (10,000 tons, 22 feet draught, 28 miles).

These calculations (Ex. 131) supported the pilots’ objection that the revenue earned by a resident pilot on these assignments would be less than the average net earnings for a B.C. pilot and that the Prince Rupert station—even if it consisted of only one pilot—would be financially dependent upon earnings elsewhere in the District:

	1962	1963	1964
Number of times a local pilot could have been used on port pilotage assignments at Prince Rupert.....	70	85	110
Average <i>gross</i> earnings of local pilot.....	\$6,650	\$8,075	\$10,450
Average <i>net</i> income for a B.C. pilot (income reported for income tax purposes, p. 133).....	\$14,555	\$15,060	\$15,364

Establishing resident pilots for a limited port operation is only one of the possible solutions. The others include dividing the District or establishing a northern pilot station to take charge of all assignments in the Northern Region and also assignments to the Southern Region.

STATISTICS ON NORTHERN REGION TRIPS WITH PILOTS

In order to appreciate the situation, the Regional Superintendent, at the request of the Commission, compiled for the year 1965 statistics on all northern assignments, i.e., exclusive of those that commenced or terminated in the Southern Region. He also provided previous statistics for the year 1961 which, however, covered only the assignments that concerned only Prince Rupert and vicinity, i.e., from or to sea, and, although incomplete, give a clear indication of the constant and steady growth of the Northern Region as compiled in the following table:

PILOTAGE DISTRICT OF BRITISH COLUMBIA—NORTHERN REGION EXCLUSIVELY—TRIPS WITH PILOTS

	1965					1961				
	No. of Trips	Trip Charges \$	Detention Charges \$	Expenses \$	Total Charges \$	No. of Trips	Trip Charges \$	Detention Charges \$	Expenses \$	Total Charges \$
<i>Assignments Exclusively between Sea and Prince Rupert & Vicinity</i>										
Triple Island to Prince Rupert.....	46	4,975.70	320.65	3,269.71	8,566.06	30	2,609.97	145.20	2,350.35	5,105.52
Port Edward and Watson Island to Triple Island.....	18	1,776.90	671.55	1,525.03	3,973.48	10	919.06	756.25	528.54	2,203.85
Triple Island to Watson Island and Port Edward.....	3	240.33	72.60	286.67	599.60	5	427.62	—	119.56	547.18
Port Edward and Watson Island to Prince Rupert.....	9	1,281.34	471.90	299.23	2,052.47	1	35.06	—	60.60	95.66
Prince Rupert to Triple Island.....	54	6,154.04	514.25	3,854.56	10,522.85	27	2,675.71	786.50	1,810.99	5,273.20
	130	14,428.31	2,050.95	9,235.20	25,714.46	73	6,667.42	1,687.95	4,870.04	13,225.41
<i>Assignments Between Prince Rupert and Vicinity and Other Ports in the Northern Region</i>										
Prince Rupert to Harriet Harbour.....	12	3,081.43	417.45	7.50	3,506.38					
Harriet Harbour to Prince Rupert.....	12	3,324.43	853.05	—	4,177.48					
Prince Rupert to Kitimat.....	24	3,438.81	350.90	1,104.71	4,894.42					
Kitimat to Prince Rupert.....	22	3,476.82	—	1,533.34	5,010.16					
Watson Island and Port Edward to Kitimat	4	689.38	72.60	—	761.98					
Kitimat to Watson Island and Port Edward	14	2,536.28	356.95	730.89	3,624.12					
Triple Island to Port McNeill.....	7	802.57	477.95	223.65	1,504.17					
Port McNeill to Triple Island.....	1	132.12	—	88.75	220.87					
Watson Island and Port Edward to Vancouver Island West.....	7	2,778.08	459.80	364.45	3,602.33					
Vancouver Island West to Watson Island and Port Edward.....	1	240.85	—	53.65	294.50					
Prince Rupert to Vancouver Island West.....	6	2,810.17	266.20	387.28	3,463.65					
Vancouver Island West to Prince Rupert.....	6	1,793.07	242.00	328.70	2,363.77					
	116	25,104.01	3,496.90	4,822.92	33,423.83					
	246	39,532.32	5,547.85	14,058.12	59,138.29					
GRAND TOTAL, 1965.....		100%	14.03%	35.56%	149.59%					
Average surcharge through detention and expenses over basic trip charges.....										

(Not available for 1961)

This table suggests the following remarks, *inter alia*:

- (a) It does not include all possible northern assignments because it does not show non-exempt ships which paid dues without employing a pilot. This practice, which occurs mostly in the Northern Region, has developed steadily during recent years (vide p. 61) as a result of the increase in the number of ships trading regularly with certain ports in the north and the substantial savings derived by dispensing with a pilot since only the trip charge is demanded (vide pp. 58-61).
- (b) The average surcharge on Northern Region assignments in 1965 amounted to 49.6% of the total pilotage charges to each ship. Since that time, the surcharge must have increased substantially because the 1966 amendment to the detention section of the *Schedule* (P.C. 1966-980) not only raised the daily minimum charge from \$36.30 to \$60 but also added further periods of time for which detention is payable with no deductible period and without a maximum limit, i.e., when a pilot is travelling in a ship but not piloting. This provision is of particular significance during most trips in the Northern Region. The higher cost is caused by the pilots' travelling and other expenses that are charged against the ship in the Northern Region only, and detention charges which are more likely to occur there owing to the absence of a northern pilot station.
- (c) The difference in the pilotage dues charged a ship when light and loaded is very small as is shown by the aggregate charges levied for twelve trips light from Triple Island to Harriet Harbour and return loaded.
- (d) These statistics would remain substantially the same if payment of dues were not compulsory. Contrary to the situation in the Southern Region, ships that can dispense with pilots in the Northern Region have good financial reason to do so.

COMMENTS

In this debate, it appears to have been completely forgotten that pilotage is a service and, hence, its organization must adapt to the legitimate requirements of those for whom it exists.

The fact that the Crown has intervened by creating a District and licensing pilots should be a further guarantee to shipping of a more efficient service. Such intervention should never serve primarily for the private interests of the pilots to the disadvantage of shipping and the pilots should not abuse the franchise thus created by not providing as efficient a service as might reasonably be expected.

Furthermore, when a service becomes a public service, as is the case when compulsory pilotage of any form is imposed, the private interests of the pilots should yield before the superior interests of the service. If a pilot station ought to be maintained in a given area in the interests of the public and shipping, such considerations as whether it would be financially self-supporting should not be entertained. In a public service, some sectors are always more profitable than others and working conditions easier. Those who provide the service, especially when they are given a franchise, should not be allowed to neglect less profitable areas. The service should be considered as a whole, the smaller return and greater difficulties in some sectors being compensated for by higher revenue and easier arrangements in others. This is one factor to be considered when the tariff is established so that in the end each pilot will receive in aggregate an adequate annual income. But when a tariff has been established along these lines, no pilot should be allowed to alter the organizational structure so as to discriminate between regions.

This problem will be half solved if, as recommended earlier (vide p. 72), the same assignments are always given to the same pilots on the basis of the specific qualifications they possess for the waters concerned. It would then be logical for these pilots to reside as close as possible to the scene of their most frequent employment.

(2) PILOT BOARDING STATIONS

The expression "boarding station" is not used in the Canada Shipping Act but reference is made to such stations with regard to the application of the compulsory payment system. Secs. 348 and 349 stipulate that a ship requiring a pilot on her inward voyage must display the signal for a pilot "whilst within the limits prescribed for that purpose" (subsec. 348(a)), or "until the ship has passed a point or place, from time to time fixed in that behalf by the pilotage authority of the district" (subsec. 349(1)(b)).

Therefore, a boarding station was conceived as the area at the approaches to a harbour or at the entrance to a Pilotage District where pilots were required to await the arrival of ships to offer their services and were forbidden to go beyond the limits of the boarding area to do so. The creation of boarding areas and legislation regarding their use by pilots are matters to be dealt with by the Pilotage Authority by regulations pursuant to subsec. 329(f) C.S.A.

With fully controlled pilotage the necessity for legislation imposing boarding stations on pilots has disappeared nor is it required to enforce the compulsory payment system. These are now details of internal organization. This is probably why the subject is generally no longer dealt with in District regulations. The British Columbia District is the sole exception in this regard, but its governing By-law provisions on the matter (sec. 14) are informative

only and create neither rights nor obligations. Designated stations are required because of the very nature of the District which extends over the whole of the Pacific coast of Canada. It would be impossible to have boarding stations at every point where ships might choose to enter the District since this might be anywhere along the six hundred-mile coast line. Accordingly, it was decided to establish permanent boarding stations only on the entry routes mostly used by ocean-going vessels and to permit arrangements for other boarding facilities to meet special cases. The inclusion of such information in the District By-laws was one of the means at the disposal of the Pilotage Authority to notify all concerned.

ARRANGEMENTS FOR PILOT BOARDING STATIONS

(a) *By By-law*

Two permanent boarding stations are specified in the District By-law; one is situated at the southern entrance to the District "within a radius of two miles of the fairway buoy off Brothie Ledge near Victoria", and the other is situated at the northern entrance to the District "off Triple Island near Prince Rupert". Both Victoria and Prince Rupert are official Ports of Entry for customs and immigration purposes.

(b) *By Notice to Mariners*

The District By-law also provides for the establishment of pilot boarding stations "at any other place specified in a Notice to Mariners promulgated by the Deputy Minister of Transport". At present, there are none, but *Sand Heads*, which is still regularly maintained as a boarding station for the New Westminster District pilots, was specified as a boarding station for the British Columbia District pilots as well at the time of the Puget Sound dispute (vide pp. 31-33). Sand Heads is the nearest boarding area for ships sailing between British Columbia ports and United States ports at the southeast end of the Strait of Georgia when using Rosario Strait.

With the settlement of the Puget Sound dispute, the British Columbia District pilots requested the withdrawal of Sand Heads as one of their boarding stations. The Pilotage Authority agreed but, as a consequence of the B.C. pilots no longer making themselves available at this point of entry, it was also decided that ships passing Sand Heads to and from an American port in the Strait of Georgia and not taking a pilot would not be charged dues (vide p. 53). At present, there is little traffic of this nature but the situation may change.

In the case of traffic between the New Westminster (Fraser River) and British Columbia Districts, the Sand Heads boarding facilities are used by the British Columbia District pilots only when convenient. Most of the time, they find it easier to board or disembark at New Westminster. As this is

strictly a matter of personal choice involving no additional expense to the vessel, no exact account is kept of the use made by them of the Sand Heads boarding facilities, but the Superintendent estimated that in 1964 they used the launch there about 40% of the time (Ex. 1450 (a)).

(c) *By Special Arrangement*

Finally, the District By-law provides for setting up a pilot boarding station "at any other point by special arrangement with the Superintendent". This provision is used to cover all other boarding arrangements both inside and outside the District.

(i) *Inside the District*

(A) *Cape Beale*—Boarding arrangements were made at Cape Beale, Barkley Sound, to accommodate ships from the south bound for ports on the west coast of Vancouver Island or in the northern part of British Columbia, and *vice versa*. The boarding facilities at Cape Beale were originally arranged by the Superintendent when the District was put under Government control in 1929. They have been used extensively ever since and, although Cape Beale has been considered for quite some time a regular and permanent boarding station, it has never been officially recognized as such either by By-law amendment or by Notice to Mariners. No reason was advanced by the Pilotage Authority to explain this apparent inconsistency.

(B) *In Ports*—Arrangements are also made for pilots to board vessels in ports when ships are ready to sail or when pilots are needed to make harbour shifts (movages).

(C) *Elsewhere*—Except as noted above, pilots seldom board vessels anywhere else in the District either because land communications are non-existent or because the coastline is generally too exposed to permit pilots to board in open waters (unless the weather is exceptionally favourable) and ships can not afford to wait for fine weather.

(ii) *Outside the District*

Embarking or disembarking a pilot outside the District is a special feature of coastal pilotage in British Columbia. Normally, an incoming ship wishing a pilot should proceed to one of the boarding stations but this might entail a considerable deviation from the shortest route and cause extra expense and delay. A ship loses time and money when she slows or stops to embark a pilot (turbine tankers are particularly affected) and there is added risk whenever land or other ships are approached.

To obviate this difficulty, the shipping interests concerned asked the pilots to travel outside the District to board:

(A) *in Seattle or other Puget Sound ports* for trips between these ports and Vancouver or other B.C. District ports *via* Haro Strait;

(B) *in San Francisco or other California ports, and in Oregon or Alaska ports* for trips between these ports and B.C. ports on the west coast of Vancouver Island or in the northern part of the District.

The pilots agreed subject to certain conditions noted hereunder. They stated that they consented to provide this service solely as a convenience to shipowners. They do not consider it a holiday to join ships outside the District and frequently find it boring to be idle for long periods. Some pilots prefer to trade places with other pilots when their turn comes.

This, however, must be recognized as one of the features of coastal pilotage that has to be accepted. For example, the coastal pilots in Australia performing pilotage in the Great Barrier Reef region are faced with the same problem; they do not require a ship to detour from its route to embark or disembark a coastal pilot but regularly board and disembark at any place or port—even outside Australian waters—provided they are adequately compensated for the expenses they thereby incur (vide Part I, *App. XIII*, p. 779).

AGREEMENTS BY B.C. DISTRICT PILOTS

(a) *Puget Sound Agreement*

This agreement has been in operation for many years. It involves both Canadian (B.C. District) and American (Puget Sound) pilots and provides that in ships sailing between Puget Sound and B.C. ports the pilots travel outside their respective Pilotage Districts to board or leave vessels. For instance, in a ship bound from Seattle to Vancouver, the Canadian pilot is asked to proceed to Seattle to board the ship there with the Puget Sound pilot and travel as a passenger until the ship enters British Columbia District pilotage waters where he takes over pilotage duties from his American colleague. Since this is a reciprocal agreement, the Puget Sound pilot stays on board as a passenger until the ship's arrival in Vancouver and returns home by land or air. On voyages from British Columbia to Puget Sound ports, the procedure is reversed. Ninety per cent of the Puget Sound trips are to or from Vancouver. The changeover takes place either in Haro Strait off the Lime Kiln, San Juan Island, or off East Point (vide pp. 31-33) or in ships proceeding through Rosario Strait at the Canada-U.S. boundary line at the South entrance to the Strait of Georgia (although from the boundary line almost up to Vancouver, the Strait forms part of the New Westminster District).

For this extra service, including the pilot's travelling expenses, the tariff up to 1965 included an additional charge of \$48.40 although, in fact, the charge was raised to \$60 in 1961. This discrepancy was not corrected until the 1965 By-law which, in subsec. 11(2) of the *Schedule*, provides for two different charges depending upon the Puget Sound port concerned, i.e.,

\$60 for a port on the eastern or southern shores of Puget Sound, including Tacoma and Port Angeles, and \$100 for any other Puget Sound port.

(b) California Shipping Company Agreement

To avoid calling at the Cape Beale boarding station on trips to and from ports on the west coast of Vancouver Island and the Northern Region of the District, the California Shipping Company invited the British Columbia District pilots to embark or disembark in California ports. On November 16, 1961, an agreement was signed between the California Shipping Company and the British Columbia Pilots' Committee (Ex. 81). Under the terms of this agreement, the pilot is paid first class travelling and subsistence expenses. As of 1963, he also receives, in addition to the regular pilotage dues, detention money of \$75 for each day, or part thereof, calculated from the time of departure from his home base until he commences pilotage duties within the District on northbound sailings or from the time he ceases pilotage duties at his district limits until he returns to his base on southbound trips. Although these trips are all north of latitude 50°, only one pilot is despatched because that part of the trip in Canadian pilotage waters is below the eight-hour requirement (see sec. 5 hereunder). In this connection, the following reservation is made in the agreement:

"5. Inasmuch as there will be no requirement under these arrangements for the Pilot to be on duty for any period in excess of eight hours, it will be necessary to carry only one Pilot" (Ex. 81).

(c) Other Agreements

On November 6, 1961, the British Columbia District pilots made a general offer to the shipping companies

"to board or disembark from vessels at any port, anchorage, point, or place, outside of the B.C. Pilotage District, when this can be done in safety, and when the exigencies of the service permit" (Ex. 1164)

for the same monetary consideration as that of their agreement with California Shipping. Among others, Standard Oil and Saguenay Shipping Companies have taken advantage of this offer. For Standard Oil, pilots fly from Vancouver to San Diego, Los Angeles or San Francisco to embark and wait, if necessary, for the tankers to load. If the destination is Prince Rupert or Watson Island (Porpoise Harbour), they are on board as passengers for four or five days before commencing to pilot the ship into harbour. They normally wait during unloading (about a day) and pilot the vessel out to sea. Sometimes they may have to remain with the ship until she returns to California from where they fly home. Pilots are usually so retained at Ocean Falls, Port Alice and other ports where the difficulty of land transport or

other factors do not make it advisable to effect a changeover of pilots. Standard Oil Company Ltd. is reported to be pleased with the arrangement. The pilots also embark or disembark at any Alaska port subject to the same conditions.

On one occasion, a Saguenay Shipping Company vessel sailing from Kitimat to a California port used this out-of-District service because the weather made it inadvisable to attempt to disembark the pilot at Cape Beale. This was not a situation foreseen by sec. 359 C.S.A. where the pilot is taken out of his District by stress of weather. In this particular instance, it would have been possible, although inconvenient, for the vessel to detour to one of the official boarding stations.

While the Pilotage Authority has not been a party to any of these agreements, the Authority has taken no exception to them and will not object provided these out-of-District services do not interfere with normal pilotage operations inside the District. In other words, the Superintendent would not approve of a pilot taking such an assignment if it would interfere with local requirements. Similarly, since this is a service being provided outside the district limits, the Superintendent would not urge a pilot to accept the assignment if it were against the pilot's wishes (e.g., at the time of the Puget Sound dispute).

Contrary to the attitude taken in the Puget Sound agreement, the California Shipping Company agreement, as extended to all shipowners, was not reflected in the tariff. In the 1965 General Bylaw, this situation was corrected somewhat by the inclusion of a general provision to the effect that the additional charge in such cases would have to be agreed upon between the Authority and the Master or agent concerned (By-law *Schedule*, subsec. 11(3)).

In all cases, however, the Superintendent collected the money on the pilots' behalf and, after deducting travelling and subsistence expenses, placed the remainder in the pool for eventual distribution. The charges were shown separately on the bill presented to the shipping companies, qualified by the words "as agreed", but the revenues were nonetheless shown as earnings in the District pilotage financial statements.

So far, it appears that this extra service has not interfered with the pilotage service in the District. However, to meet the additional requirement, it has been necessary to increase the number of pilots considerably. In fact, the pilots admitted that if these out-of-District services were to be discontinued, the number of pilots in their District could be decreased by ten or twelve.

BOARDING-OFF POINTS

Although the By-law implies that a ship should call at a boarding station to disembark a pilot, it has been agreed by the Pilots' Committee that they will disembark in any suitable place provided:

- (a) weather permits,
- (b) a safe pilot boat is available, and
- (c) the ship pays a "boarding-off" charge of one day's detention, i.e., \$36.30 in addition to the normal dues as if the trip had been completed to the boarding station.

Although this practice had long been in effect, it was not until the General By-law of 1965 that it was sanctioned in the regulations. Section 8 of the *Schedule* to the present General By-law reads as follows:

"8. Where, for the convenience of a vessel that is entering or leaving the District, a pilot is embarked or disembarked at a point north of 50° north latitude on the west coast of Vancouver Island other than a pilot boarding station at Triple Island or Cape Beale, there shall be paid, in addition to any dues otherwise payable pursuant to this Schedule, the sum of \$36.30".

There are a number of boarding-off points, the main ones being Esperanza Inlet, Port Hardy and Quatsino Sound. The principal ports they serve and their respective distance from the nearest pilot boarding station are as follows:

Boarding-Off Points	Principal Ports Served	Distance to Nearest Pilot Boarding Station
1. Esperanza Inlet.....	Tahsis Zeballos	} Approx. 60 miles—Cape Beale
2. Port Hardy (or Pine Island, weather permitting).....	Port McNeill Beaver Cove Telegraph Cove	
3. Quatsino Sound.....	Port Alice	Approx. 150 miles—Cape Beale

When a ship is returning to sea, the Master may not need as much help as on the inward passage and may be able to dispense with the pilot after receiving advice as to which course to steer. He could then disembark the pilot anywhere this can reasonably be done and where the pilot has means of transportation to return to his base station. If the weather is inclement, or the boat owner feels conditions are too dangerous, the ship must then proceed to a regular boarding station to disembark the pilot unless he agrees to be overcarried and disembarked outside the District.

STATISTICS ON BOARDING AND DISEMBARKING

The following tabulation shows the number of times each type of boarding arrangements was used and indicates their relative importance, not counting boarding and disembarking from a berth in a B.C. District port or at New Westminster:

BOARDING AND DISEMBARKING
NOT INCLUDING THOSE FROM A BERTH IN A B.C. PORT

	1961	1962	1963	1964	1965	1966	1967
Boarding Station							
Brotchie Ledge.....	3,162	3,666*	3,840	3,643	3,412	3,434	3,620
Cape Beale.....	344	388	429	449	469	423	367
Triple Island.....	105	103	135	165	162**	186	206
Boarding-off Points							
Port Hardy.....	36	19	21	18	6	7	20
Quatsino Sound.....	12	12	15	17	17	20	21
Others.....	n.a.	9	—	6	—	37	—
Total Times Pilot Boats and Hired Launches Used.....							
	3,659	4,197	4,435†	4,298	4,066	4,107	4,234
Boarding and Disembarking Outside B.C. District Waters							
Puget Sound ports.....	647	336	106	603	762	659	731
Alaska ports.....	4	11	8	3	—	—	1
California ports.....	11	20	15	15	11	16	18
Oregon ports.....	—	8	—	3	3	6	1
Total.....	662	375‡	129‡	624	776	681	751

*Including 2 at Sand Heads.

**51 by the privately-owned pilot boat up to the take-over by D.O.T.

†Discrepancy of 5 disregarded.

‡Decrease no doubt attributable to the Puget Sound dispute.

n.a. not available

SOURCE OF INFORMATION: Ex. 205 and Ex. 1160.

RECOMMENDATIONS RECEIVED

The Vancouver Chamber of Shipping explained that with only Brotchie Ledge, Cape Beale and Triple Island as regular boarding stations, ships whose destination is a port between Cape Beale and Triple Island (for example, Ocean Falls or Kitimat) have to make a long and expensive detour to embark a pilot. The Chamber therefore recommended that an intermediate boarding station be established between Cape Beale and Prince Rupert adding that it did not wish to specify any one place owing to the necessity for the Department of Transport to make a thorough survey of the services that would need to be provided there, such as aids to navigation, D. F. Stations, pilot boats, etc., before a site is selected.

Saguenay Shipping Ltd. never used, nor considered using, Triple Island as a regular boarding station for its ships coming from the South because it found it more economical to pay detention charges for two pilots than to incur the additional operating expenses of diverting its ships to Triple Island. From the Company's point of view, Cape Beale is at the moment the most satisfactory of the three available boarding stations, but the Company feels that an intermediate station would reduce its operating costs and any such reduction would enable the Company to be more competitive in world markets. While the Company appreciated that few sheltered places were available for this purpose, it appeared at the time of a meeting between officials of the Company and the pilots in 1962 that a pilot boat might be kept at Klemtu on Swindle Island, some twenty-five miles northeast of McInnes Island Light (C.H.S. Chart 3711), thus enabling the McInnes Island area to serve as a boarding station for both Kitimat and Harriet Harbour.

Generally, the feeling in the north is that everything is easier in the Southern Region: distances are shorter, there are no travelling or detention charges and, hence, costs are lower. The northern companies claim that their vast investments in the northern areas should entitle them to equal consideration and that some effort should be made to lighten their economic burden by equalizing pilotage costs.

(3) PILOT VESSELS

As seen in Part I (C.5, p. 109 and C.8, pp. 276 and ff.), the question of availability of pilot vessels to allow pilots to board or disembark off shore is not part of the Pilotage Authorities' responsibilities under the scheme of organization still provided under Part VI C.S.A. One of the results of the Pilotage Authorities assuming full control of the service by assigning pilots was to place on the Pilotage Authorities' shoulders the responsibility that the pilots are provided with adequate pilot vessel service. In this respect, British Columbia is a case of exception because it is a coastal District in which it is a practical impossibility to provide regular pilot vessel service at every possible point of entry. The solution the Pilotage Authority adopted was to arrange for regular pilot vessel service at the entrance to the busiest routes, i.e., at each regular boarding station, and to supply private operators on a trip basis for the occasional service required elsewhere. These arrangements were made when it became the Department of Transport's policy to operate pilot vessel service in New Westminster, St. John's, Newfoundland, and Districts where the Minister was the Pilotage Authority. Because of the practical impossibility of providing and operating pilotage vessel service at every point in a District where such service might be occasionally required, Order in Council P.C. 1959-19/1093 authorized the Government to assume half the cost when a privately-owned vessel had to be hired on a trip

basis for such use. British Columbia is apparently the only District where advantage is taken of this provision.

Acting upon this authority, the Department of Transport took over the operation of the pilot vessel service at Brothie Ledge and has operated it ever since. The pilot boat charge is \$10 per ship serviced. Elsewhere, the service is provided on a trip basis by private operators. The Regional Superintendent supervises the efficiency of the services so provided and negotiates general agreements for the Government with the private operators. The pilots have no say in the hiring of these privately-owned pilot vessels.

Payment for these private pilot vessel services is handled by the Regional Superintendent who charges the ship concerned half the cost of hire and collects the amount as pilotage dues. He pays the full charge to the operator concerned and debits the Government with the other half.

At the time of the Commission's hearing in British Columbia in 1963, the pilots expressed their satisfaction with the three pilot vessels operated by the Department of Transport at Brothie Ledge, i.e., *Canada Pilot Nos. 20, 21 and 22*. Since that time, Marconi Raymarc radars were installed in *Canada Pilot Nos. 21 and 22*, in August 1965. It has been reported that these radars are satisfactory. Since May 1965, the station has been serviced by only two pilot vessels, *No. 22* having been temporarily transferred to Triple Island.

At Cape Beale, the service is provided by Mrs. Riley of Port Alberni. In 1963, it was a new vessel which made the 35-mile trip from Port Alberni to Cape Beale in five or six hours but was too small to operate beyond Cape Beale in the open sea.

At Vancouver and in the other B.C. ports, the pilots board and disembark at a pier. When ships are at anchor, the pilots use a taxi boat or a tug arranged for and paid by the shipping agents. It would appear that the Government does not contribute to the payment of the relatively small charges incurred on such occasions.

At the time of the Commission's hearing, pilot vessel service at Triple Island was provided by a private contractor, the Armour Salvage Co. The pilots complained that the old wooden fish tugs which were used were not suitable for such service on the grounds that they had insufficient free-board, the bulwarks were an obstacle and, in general, the boats were not seaworthy enough for the conditions frequently met off Triple Island. The pilots felt that while these boats might be safe in sheltered waters, they found them difficult to use for boarding purposes and feared casualties might result from their continued use.

The pilots urged that a pilot vessel be constructed at Government cost for use at Prince Rupert and that its operation be entrusted to the Armour Salvage Co. because the Company has acquired considerable experience over the years in providing this service. They also suggested that the new

vessel be constructed along the lines of the pilot vessels used at Saint John, N.B., and that a naval architect be employed to ensure that the vessel meets local requirements. In particular, the deck should have no railings because otherwise the ship's ladder is apt to tangle with them when the pilot is embarking. In this connection, they remarked that a ship must maintain a speed of 12 knots off Triple Island in order to stem tidal currents that run up to 5 knots.

The Department of Transport representatives observed that the vessel used by the Armour Salvage Co., although uncomfortable, had met inspection standards and was seaworthy. At the same time they agreed that a new vessel would be an improvement and at the 1965 Ottawa hearing of the Commission they stated that provision had been made in the 1964-1965 estimates for a vessel similar to the type used at Les Escoumains (71 feet overall). In this connection, the Department pointed out that all efforts to hire another vessel or to secure a different contractor had failed.

The Prince Rupert Chamber of Commerce urged that the pilot vessel service be taken over by the Department of Transport and that the pilot boat charges be the same as those at Vancouver. Presumably Victoria was meant since there is no pilot vessel service at Vancouver. The President of G. W. Nickerson Co. Ltd. concurred, adding that the charges should be uniform throughout the District.

Action was precipitated when in April, 1965, Armour Salvage Co. increased its charge for pilot boat service from \$120 to \$300. The Department of Transport decided to take over and withdrew from Brotchie Ledge *Canada Pilot No. 22* which was sent to Triple Island on temporary duty. It arrived May 2, 1965. Under the direction of the District Marine Agent, it has provided pilot boat service there ever since, except for a three-week period (February 23 to March 15, 1966) when it was taken out of service for a major refit. During that period, service was provided by the tug *F. H. Phippen* chartered from Armour Salvage Co. The Superintendent reported that the pilots were satisfied with its performance.

However, the Department of Transport stated that it still intends to have a new pilot vessel constructed for Prince Rupert although this may take some considerable time.

The share of the pilot boat charge is now the same as ships had to pay prior to the increase by Armour Salvage Co., i.e., \$60 each time the boat is used to embark or disembark a pilot at Triple Island (Ex. 1450(c)).

The By-law provisions reflect these arrangements. A new subsection added in 1965 (*Schedule*, subsec. 13(2)) fixed the pilot boat charge for service at Triple Island at \$60. Due to a drafting error, the former provision, which later became subsec. 13(3), was not corrected to exclude Triple Id. As it now reads, it provides that elsewhere than at Brotchie Ledge the Government will pay half the pilot boat charge. The fact that Brotchie

Ledge is mentioned and not Triple Island would indicate that a distinction should be made and that this last provision also applied to Triple Island, thereby reducing the charge to shipping to \$30. However, this is merely a drafting error and the actual charge to shipping at Triple Island is \$60 (Ex. 1493(e)).

(4) DESPATCHING

From an operational point of view, despatching is difficult in any coastal District and particularly so in B.C. with its extensive territory and limited transportation.

(a) *By-law Provisions*

District By-law provisions allow all the necessary flexibility:

- (i) The Regional Superintendent is the despatching authority and pilots must obey any assignment to duty required by the Superintendent (unless they are on regular leave of absence) and may never pilot vessels unless so directed (By-law, subsec. 23(1)).
- (ii) To prevent irregularity or discrimination in assignments while leaving discretion for special cases, the By-law provides that “normally” and “as far as is practicable” assignments shall be made “in regular turn”, i.e., according to a tour de rôle or roster system. Full discretion is left to the Regional Superintendent to devise whatever system meets the particular needs of his District and to make exceptions to the system if warranted (By-law, sub-sec. 23(2)).

Assignments are not made on a trip basis but on the basis of a service which may include a number of trips, movages and periods of detention. Sec. 25 of the By-law provides that a pilot shall not leave a vessel unless he is discharged by the Master or relieved by another pilot until

“the service for which he was engaged has been performed and the vessel is in a safe position”.

This requirement goes beyond sec. 361 C.S.A. which establishes that under the free enterprise system a pilotage service is considered terminated for the purpose of a pilotage contract between a Master and a pilot as soon as the ship being piloted reaches her destination or passes the district limit, whichever occurs first. This provision still has a place in a system of controlled pilotage in that it lays down a statutory minimum which any authority providing pilotage services must observe. In the same way that pilots were at liberty, under the free enterprise system, to extend their obligations toward a Master by private arrangements with him, the authority who provides pilots' services in fully controlled pilotage may extend the statutory minimum duration of a pilot's tour of duty. Whether a pilot may quit a ship at the end of a trip or movage is a question to be determined

by the future requirements of the ship for pilotage services and by operational considerations, e.g., efficiency, economy, and the equitable distribution of assignments among pilots. (The joint despatching of pilots is studied later in this chapter under (5) *Requirement for Two Pilots*.)

(b) *Three Operational Situations*

Hence, three operational situations are generally met in the District:

- (i) A ship calls at a northern port where, for practical purposes, there is no means of transportation to return the pilot to his own base or to send a replacement. In such a case, because pilotage is also required during all or part of the return trip, there is no alternative for the despatching authority but to require that the pilot remain with the ship for the round trip. The period a pilot is retained in port for this reason and does not perform pilotage duties is called "detention" and a charge is made for it. A fair example of this situation is a trip by a Japanese ore ship to Harriet Harbour. The pilot who takes charge on her arrival at Triple Island on the inward voyage performs six pilotage tasks before he disembarks at Triple Island when the ship is outward bound on the return voyage to Japan. He is detained on board when the ship sails outside the District (since 1966 there has also been a charge for this type of detention) when loading at Harriet Harbour, and in Prince Rupert on both inward and outward voyages for the entry and clearance procedure.
- (ii) The opposite situation arises when, after the completion of one trip, the Pilotage Authority is able, without serious inconvenience, to assign a new pilot for the next trip. In such a case, the Master is not allowed to detain the pilot when the ship has reached her destination and is in a safe position. In such a case, the pilot is generally required to proceed to the nearest pilot station and, after a reasonable rest period, is given a fresh assignment, preferably toward his base. While he is at such a pilot station, he may be required to perform local movages. In the Southern Region, a Master has no voice in this matter because the pilots' travelling expenses are not charged against the ship.
- (iii) There is also the intermediate situation, which occurs only in the Northern Region, when a changeover of pilots means extra expense to a ship in that she is obliged to pay for the transportation costs of the first pilot back to his base and of the relief pilot from his base to the port concerned. In such a case, it is left to the Master to decide, the criterion being the convenience of the ship. In some ports, e.g., Kitimat, the shipping companies have found it more economical to retain a pilot and pay a detention charge

whenever a ship is able to complete loading and unloading within three days. A Master's calculations may be upset by unexpected events which must be accepted as hazards that entail re-evaluation of the situation. For instance, in December 1962, S.S. *Sunrip* was unexpectedly delayed in Kitimat for nearly two days by a damaged derrick (Ex. 136).

(c) *Procedure*

The many factors that must be taken into account in assigning pilots and the wide difference between assignments make it impossible to adhere to a strict roster system. Therefore, no attempt is made in the British Columbia District to equalize either the number of assignments or the actual time the pilots spend on duty, although pilots are despatched with the knowledge that throughout the year (as statistics show) the average duty hours of each will be approximately the same.

Despatching must be efficient in order to avoid wasting manpower and prevent unnecessary expense either to shipping in the Northern Region or to the pilots in the Southern Region. For this reason, the despatcher must know the traffic situation at any moment, where the pilots are, and when and where their services are required as well as the nature and particulars of these requirements. In order to make the most effective use of pilots, despatching is centred in the Vancouver office and the Regional Superintendent has authority to assign pilots from wherever they may happen to be on duty inside or outside the District. Two tours de rôle or assignment lists are kept, one for local work and one for northern assignments. A pilot whose name appears on the local tour de rôle (except when he is first on the northern list) is despatched in rotation, i.e., the top name on the list of those available for duty in the locality of the assignment is chosen. However, the northern list is given precedence. The pilot whose name is first on the northern list is given the first northern assignment no matter what his position on the local roster. He may then be away from his base for several days and, as seen above, receive various assignments while he is in the outports. Once he returns to his base, he is put back on the local tour de rôle and, unless he is on leave, depending upon the circumstances, he may be given another assignment after a short period of rest. The northern list was instituted when it was found that some pilots, particularly those based in Nanaimo, had few opportunities to go north. The northern tour de rôle system now ensures that each pilot, in addition to having his fair share of lengthy assignments, has some northern experience to help him maintain his professional knowledge of the District as a whole. In practice, this aim is not attained in view of the extent of the Northern Region and the relatively few opportunities a pilot has to go there when the assignments are shared among all the pilots (vide pp. 73 and 74). An interval of four or five weeks usually elapses before the same pilot is given another northern assignment.

When warranted for the safety of a given ship or a category of ships, the Superintendent may disregard the tour de rôle partly or wholly. Although the Superintendent is not obliged to do so, it has been his commendable practice in such cases to consult with the Pilots' Committee and obtain its concurrence. Consultation is indicated because the pilots are the experts in the navigation of the District waters but concurrence is desirable solely for the purpose of maintaining good relations with the pilots. Their agreement should not be made a prerequisite because it would be a denial of the Superintendent's authority on the matter and because the pilots are not in an unbiased position. If the reasons advanced by the pilots against a proposed despatching are not sufficiently convincing, their advice should not be followed and any doubt in such matters should always be resolved in the interest of safety. Such decisions may be taken on an individual basis but, when similar cases are likely to reoccur, standing rules are drawn up, e.g., the first pilot on the roster with ten or more years' experience is assigned to a passenger liner such as the T.T.-E. *Canberra* and the criterion is only the length of time a pilot has served in the District.

In the pilotage office at Vancouver, there is a despatching room with a despatcher on duty at all times. In order to enable the despatcher to know the whereabouts of the pilots at a glance and permit despatching operations to be effected as economically as possible, in regard to both time and cost, a large map of the 600-mile coastal District is used as a working board on which an up-to-date plot is kept of all incoming ships requiring pilots as well as all ships employing the services of a pilot. Each pilot is given a marker bearing a number. When he is assigned to a ship or is on board, the pilot's marker is placed with the ship and both are moved along together on the plotting map; otherwise, the pilot's marker is placed on a special board indicating that he is either off duty, on leave, awaiting assignment on the general roster, or awaiting assignment on the northern roster.

The despatcher tries to give pilots their assignments as far in advance as possible and during normal daylight working hours so as to allow them the maximum time off duty. Since distance is such an important factor in the District, the despatcher must be conversant with air, rail and bus timetables to ensure that pilots reach their assignments in good time. In this connection, it is noted that most pilotage trips take place at night: ships usually load by day and sail or move to another harbour or another berth at night to continue loading the next day. Stevedores stop work at midnight and are paid overtime if they work after 5 p.m.

The Regional Superintendent reported that there was no recorded instance of a pilot quitting a ship or refusing to perform his duties. Once, a pilot was relieved because of an argument with the Master who wished to proceed despite the pilot's advice; occasionally, the Superintendent relieves a pilot who claims he is too tired to continue.

(5) REQUIREMENT FOR TWO PILOTS

LEGAL SITUATION

Normally, pilots are despatched one at a time to assignments including movages. Subsec. 23(5) of the B.C. General By-law provides two exceptions and sec. 2 of the *Schedule* fixes the remuneration of the second pilot at half the regular dues in addition to the full payment of travelling and other expenses detailed in sec. 11 of the *Schedule*. Subsec. 23(5) reads:

“Two pilots shall be assigned to a vessel when

- (a) that vessel requires the services of a pilot for a period in excess of eight consecutive hours while on passage to or from any point north of 50° north latitude, or
- (b) the Superintendent is of the opinion that the intended movements of the vessel require the assignment of two pilots”.

This requirement is not permissible under the present legislation but is, nevertheless, the logical result of a system which exercises full control of the pilotage service. When the pilots' status is altered from private contractors to quasi-employees, their natural tendency is to attempt to improve their working conditions and, when a Pilotage Authority becomes responsible for despatching, it *ipso facto* assumes responsibility for ensuring that adequate service is provided for each individual assignment.

Under Part VI C.S.A. there is no provision requiring a ship to employ more than one pilot. When a pilot is employed, he is obliged to perform pilotage duties as requested by the Master until the ship has reached her destination or the limit of the District, whichever is first (sec. 361 C.S.A.). Under no circumstances can a pilot demand he be accompanied by a second pilot. Until recently, a normal pilotage trip took considerable time—fifteen or even twenty hours of continuous duty was a common occurrence—but this was accepted as inherent in the profession. If the question of safety was not raised, it may be surmised it was because along the various routes followed there were a number of areas where navigation did not require the constant personal attention of the pilot, thus allowing him time for rest. On the other hand, there was nothing to prevent a Master from hiring two pilots (provided he paid each pilot his full remuneration) if he thought that the safety of his ship so required or that some advantage, e.g., a fast transit, would be gained thereby. The fact that the Pilotage Authority, despite the law, has assumed responsibility for controlling the service has not altered the situation: under present legislation, the Pilotage Authority can under no circumstances require a ship to pay extra pilotage dues because a second pilot is assigned, unless the Master concurs. This has placed the Pilotage Authority in a dilemma: on one hand, it can not force any pilot to work without remuneration; on the other hand, it must allocate two pilots to an assignment if the intended trip and the prevailing conditions so require for the safety of the ship. In the B.C. District, a compromise solution was arrived at which leaves much to be desired.

BACKGROUND

The two-pilot requirement at one and one-half times the regular dues dates back to 1945 when it was agreed that, because of the increasing frequency of northern trips, two pilots could be employed on any vessel proceeding to or from ports on the British Columbia coast north of latitude 50° whenever the voyage required a tour of duty exceeding twelve hours. The District By-law was then amended accordingly (P.C. 1794 dated March 16, 1945, Ex. 195-10.). Formerly northern trips, which were very infrequent occurrences, were accepted by the individual British Columbia pilots as one of the hardships of their profession like any other trip that may be occasionally delayed by adverse weather conditions or other causes, but when ships began to trade more regularly to northern ports pilots insisted on being relieved after twelve hours of pilotage duties on the alleged ground that the safety of ships was affected by the many dangerous and adverse conditions experienced in northern latitudes.

With the opening of new trade routes and the advent of larger and faster ships, the time factor soon became a point of contention which was solved superficially and temporarily by decreasing the maximum time of continuous pilotage duty from twelve hours to eight hours.

Early in 1951, when the Aluminum Company of Canada Limited started the construction of its project at Kitimat, increasing numbers of ocean-going ships visited the area and Kitimat soon became a border-line case with respect to the application of the twelve-hour rule. On the route normally followed, i.e., *via* Cape Beale, pilotage is deemed to commence off the McInnes Island Light. From there to Kitimat, the pilotage run is 120 miles. At first, the trip took more than twelve hours because the ships used on this run by Saguenay Terminals Ltd. (subsequently called Saguenay Shipping Limited) averaged only nine to ten knots and because delays were to be expected on account of insufficient aids to navigation, unsatisfactory anchorages in Douglas Channel, and lack of proper berthing and anchorage facilities at Kitimat. However, when larger, faster ships were placed on the run, Saguenay Terminals Ltd. requested that the two-pilot rule be deemed not to apply to the Cape Beale-Kitimat route for their fast ships. Characteristically, following the policy of the Pilotage Authority to consult the pilots, the question was turned over to the Pilots' Committee who dealt directly with Saguenay Terminals Ltd. As was to be expected, the Committee's reaction was unfavourable. The Chairman of the Pilots' Committee replied to the Company by letter dated December 8, 1953, explaining that since it was "impossible to foretell the hours of duty on the Kitimat run", two pilots still had to be employed, adding:

"At a later date when all the aids to navigation in this area are complete and there are faster ships on the run, we can review this matter" (Ex. 128).

A few months later, however, the Superintendent approved a request that only one pilot be allocated to a 14-knot vessel for the Cape Beale-Kitimat run but added that this should not be considered a precedent until further discussions were held between himself and the Pilots' Committee (Ex. 130). On June 28, 1954, the Superintendent wrote further to Saguenay Terminals Limited to inform them that, since they now employed faster ships on this run, the pilots were in general agreement that "one Pilot will be sufficient on vessels of $13\frac{1}{2}$ knots speed and over during summer months" (Ex. 129). However, the arrangement was discontinued for no apparent reason after about a month. The average duration of the trip on the Kitimat run was then nine to ten hours.

The question of the two-pilot requirement on the Cape Beale-Kitimat run was again discussed at meetings between the shipping interests and the Pilots' Committee in March and April 1955. These meetings resulted in an agreement to change the twelve-hour period to eight hours. The agreement was ratified shortly thereafter by a By-law amendment which also contained an additional provision giving the Pilotage Authority discretion to assign two pilots whenever it considered circumstances warranted, including the Southern Region (P.C. 1955-1441, September 21, 1955, Ex. 195-22). It was not until 1965, when the new General By-law was sanctioned, that this discretionary power was delegated to the Superintendent.

PRESENT SITUATION

The 1955 agreement merely postponed the solution to the problem as is demonstrated by the fact that the time period selected proved to be a continuous source of contention. The point was fully debated at the Commission's hearing by Saguenay Shipping Limited and the pilots. Saguenay Shipping Limited filed information on the time taken by their ships between Cape Beale and Kitimat during an eighteen-month period in 1959-1960. Analysis shows the following averages:

Inbound

Cape Beale to McInnes Island (detention)	21 hrs. 36 mins.
McInnes Island to Kitimat (pilotage)	9 hrs. 29 mins.
Time at Kitimat (detention)	1 day 22 hrs. 4 mins.

Outbound

Kitimat to McInnes Island (pilotage)	8 hrs. 37 mins.
McInnes Island to Cape Beale (detention)	18 hrs. 28 mins.

Round Trip (pilotage and detention) 4 days 8 hrs. 14 mins.

Thus, as the Company pointed out, the duration of the trip on the McInnes Island-Kitimat run, which formerly took twelve hours or more with the original 10-knot Park type vessel, was reduced a few years later to an average duration of about nine hours. The inward voyage is generally longer

on account of the time taken at Kitimat to berth because ships are usually turned before securing alongside. The average time to turn a ship at the Kitimat pier is forty-five to sixty minutes, but it may take longer due to the wind. Formerly, the only available berth was often occupied and ships had to anchor and wait; at other times, because the approach channel silted, it was necessary to wait for high tide. These inconveniences have now been corrected, the port can berth more than one ship at a time and the approach channel has been dredged. The Company urged that with still faster ships the eight-hour criterion should no longer apply.

Testifying on behalf of the Aluminum Company of Canada on this point, Captain K. J. Loder, Marine Superintendent of Saguenay Shipping Limited, stated that, in his opinion, the coastal waters of British Columbia presented no particular hazards to navigation except those common to restricted waters throughout the world. He did not believe that a period of eight to ten hours continuous duty on the bridge for a pilot going into or leaving Kitimat under reasonable conditions was excessive because the pilot is well rested both on the inward and outward trip. He added that it was not unusual for a pilot to be on duty ten hours or more. One example given was the 152-mile trip from Port Alfred to Quebec on which only one pilot is employed, even in a slow ship which may take up to twenty hours. A second example is the Panama Canal where each transit, involving six separate dockings and undockings and requiring an average of eight to ten hours, is carried out by one pilot on a compulsory pilotage basis.

The Aluminum Company of Canada Limited brought evidence to demonstrate that the two-pilot requirement is unnecessarily costly for shipping. The economic consequences as far as ALCAN is concerned are reviewed later (vide pp. 169-170).

In their brief, Crown Zellerbach protested against this requirement, especially for their operations in Duncan Bay which is barely north of latitude 50°.

The pilots argue that the two-pilot requirement should be retained in border-line cases pointing out that even an eight-hour period on the bridge is too long, especially in bad weather, and there is no guarantee that any trip will not take much longer than usual on account of many unforeseen causes of delay. They stressed that the main reason for their stand is safety and that a pilot who has been on the bridge for more than eight hours would not be in good condition to pilot and berth a ship. The purpose is to avoid "mental fatigue" for the pilot. When two pilots are aboard, they relieve one another periodically so that they are not overworked if the trip lasts more than eight hours.

However, the main reason for the pilots' request was to improve their working conditions, an argument which is consistent with the type of time criterion that was devised. This was openly and repeatedly admitted by the

then president of the Pilots' Committee (the late Capt. W. A. Gosse) that the trend in all industries and labour is for shorter hours of duty. When he came to explain the change in the pilots' position since 1954, i.e., the reduction in the time criterion from twelve hours to eight hours, the only explanation he gave was "there has been a change in conditions in practically all trades. Conditions are getting better in all trades." He added quite frankly that, at any season, nine or ten hours' continuous pilotage duty is not excessive for a well-rested pilot but delays in berthing are to be expected and particularly "in this day" a continuous watch of over eight hours is "not acceptable". The pilotage time on the McInnes Island-Kitimat run having become a bone of contention, some pilots kept a record of their time. Capt. Gosse reported that some pilots had made the transit in nine hours and, he added, that "they felt a little guilty about it but others came along who took much longer".

Except for northern trips where it is mandatory, the eight-hour criterion is not used, although the Superintendent is given full discretion by the By-law to impose a double assignment whenever he believes it warranted. The most frequent run in the Southern Region is between Brotchie Ledge and Vancouver; a double assignment is never imposed, although this is also a border-line case because it frequently takes more than eight hours.

The Regional Superintendent considers that in the Northern Region a period of eight consecutive hours is generally the maximum time a pilot should be on duty because bad weather is often encountered. His main reason for not applying the eight-hour limit in the Southern Region is that finer weather usually prevails there.

From the point of view of the importance of trips involving such double assignments in relation to the total workload and earnings of pilots, an analysis provided by the Superintendent (Ex. 205) shows the following annual percentages:

Year	Percentage of Trips with Two Pilots	Percentage of Second Pilot Charge in Relation to Gross Earnings
	%	%
1961.....	5.2	3.5
1962.....	3.7	3.2
1963.....	5.4	3.5
1964.....	5.9	3.6
1965.....	5.4	3.6
1966.....	6.1	3.7
1967.....	6.5	3.8

The Regional Superintendent found that the time factor is very difficult to apply because it is a variable governed by a number of unforeseeable events. The difficulty of judging in advance the duration of a trip was shown by the fact that the slowest and fastest trips outbound from Kitimat to McInnes Island by Saguenay Shipping Ltd. vessels that called at Kitimat in 1962 were made by the same vessel. S.S. *Sunek* (GRT 12,576, speed 15 knots), outbound October 21, made the trip in six hours and forty minutes while, outbound July 16, it took ten hours and fifteen minutes (Ex. 135). What used to take more than twelve hours now takes, with faster ships, a little more than eight hours and may soon take less. The nine and ten-knot ships have almost disappeared. Today, the slowest make twelve to fourteen knots and some are being built with a guaranteed ocean speed of twenty knots. For this reason, the Superintendent does not believe that his problem would be resolved by reducing the time limit to seven hours continuous pilotage duty. As an alternative, he suggested that either one of the following measures might be instituted:

- (a) to revert to the system of allocating only one pilot during the summer months (i.e., when *Daylight Saving Time* is in force), and two pilots during the remaining months of the year, it being generally agreed that it is easier to navigate in daylight than in the dark, particularly in northern latitudes;
- (b) to assign only one pilot at all times with extra pay for periods of duty in excess of eight consecutive hours.

COMMENTS

This last suggestion on the part of the Superintendent is a further indication that the main preoccupation is not the safety of ships but working conditions and remuneration.

If a time criterion has to be retained, it should be a theoretical one that could be readily calculated from the regulations so that, on the average, on a given route, a pilot would be required to be on duty for a normal reasonable period. The average would be derived from calculations which would include the occasional abnormally long trip caused by unforeseeable events and, also, the fastest trips under the best conditions. The relief of a pilot after a given period of duty during a voyage requires a system whereby a changeover of pilots can be effected anywhere *en route*; this is possible only by despatching a number of pilots simultaneously on every assignment, observing that the actual duration of any trip can never be precisely ascertained beforehand. One of the hazards peculiar to pilotage is that occasionally an assignment lasts much longer than expected because of circumstances beyond control. The maximum speed at which a ship can travel on the run concerned should be included in the data for computing theoretical transit time so that faster ships can be given the benefit of their speed. For instance, it might be prescribed that on the McInnes Island-Kitimat run, the two-

pilot requirement applies only to ships under fifteen knots, irrespective of the time any one ship actually takes. It is the responsibility of the pilot (unless he is requested to do otherwise by the Master) to effect a transit in the shortest possible time, safety permitting. A pilot should never be placed in the position of gaining any advantage, financial or otherwise, by delaying a ship.

Despatching two pilots is a matter of internal organization. If the necessity arises regularly on certain runs, it is the result of service arrangements, i.e., the lack of intermediate changeover facilities for pilots. For instance, the problem does not arise on the extensive St. Lawrence Seaway route, despite its length, because the route is divided into sectors and at each limit the pilot is relieved by another pilot. Thus only one pilot remains on board and unnecessary waste of pilot time is avoided. However, the problem persists in winter but for an altogether different reason.

Certain ships or certain parts of a District are discriminated against if, on account of the arrangements made by the Pilotage Authority for the provision of service, vessels have to pay extra for a second pilot who is assigned without the Master's concurrence. When a Master or an agent contracts for pilotage, it is for the provision of service over a given route and, therefore, it should be immaterial to him whether one or two pilots are required. If Pilotage Authorities are given the responsibility of the provision of service as recommended by the Commission (vide Part I, Recommendation 14, p. 495), it will be their responsibility to provide an efficient, safe service and the detailed arrangements they adopt should be no concern of shipping. Pilotage charges should remain uniform whatever the number of pilots jointly assigned. The incidence of double assignments is a factor that should be taken into consideration when pilotage rates are established in order to ensure that the extra costs thereby incurred are reflected in the tariff, that the aggregate yearly income of the pilots is not affected, and that Pilotage Authorities feel free to assign two pilots whenever they consider it is in the interest of safety to do so. However, when two pilots are despatched at the request of a Master or because of unusual circumstances attributable to a ship, e.g., damage, double dues should be charged.

(6) WORKLOAD

BASIC CONSIDERATIONS

For many years the B.C. pilots complained they were overworked but the Pilotage Authority disagreed. It is a matter of record that this subject has long been a bone of contention. The Pilotage Authority stated that the pilots had never brought evidence to support their claim and had even refused to co-operate when it tried to survey the situation. Although the Authority was not convinced, it went part way to meet their request and increased their strength from time to time as the number of assignments rose.

The only statistical information available is the actual time on board as shown on source forms. The Authority admits that this information does not reflect the true workload of the B.C. pilots and recognizes that travelling time and detention time are important factors that must be considered on account of the peculiarity and abnormality of the B.C. District. The Pilotage Authority once tried to make a survey, but found it difficult to obtain the facts. The Regional Superintendent was requested to calculate the pilots' workload but realized that he and his already overworked staff of three were unable to carry out such a survey unless the pilots gave him their full co-operation. He supplied them with work-sheet forms, which he had arranged, with the request that they be completed and returned to him. The pilots refused to give this information, contending that, because they considered themselves free entrepreneurs, their hours of work were no one else's concern.

The pilots' attitude was a vindication of the Pilotage Authority's stand. If they had been constantly overworked so as to cause them mental fatigue to the extent of affecting their efficiency and their health, they would have spared no effort to put the hard facts before the Authority. Well knowing that their claim was exaggerated, they feared that by furnishing the required statistics they would lose their main argument.

When the pilots again raised the question of workload before this Commission, they recommended their number be increased by seven. As they tried to substantiate their request, it became clear that the term "over-work" was not to be taken in its absolute meaning but in a relative sense, i.e., they considered they were at a disadvantage when they compared their conditions of work with those of other trades connected with the waterfront. At the Commission's hearing in March, 1963, the Chairman of the Pilots' Committee expressed the view that, in order to give adequate pilotage service in the B.C. District and, at the same time, provide each pilot with a reasonable workload and proper leave and rest periods, twenty-five more pilots would have to be added to the sixty-six then on strength. He pointed out that on the basis of the Pilotage Authority's statistics for the years 1948-1962 (Ex. 205), the number of ships piloted had increased during that period by 173.5% and the number of assignments by 136.7%, but the number of pilots by only 94.1%. He then added that, during the same period, there has been an increase in professional fees and an improvement in working conditions of all trades connected with the waterfront. Realizing that such an increase would be difficult to obtain because the tariff would have to be increased proportionately to maintain their earnings at the same level, the pilots agreed at that time to limit their request to an increase of seven. In other words, the pilots felt that their remuneration was adequate and should not be lowered, but their working conditions should be improved. In this connection, they contrasted their workload with a class of employees receiving a fixed salary, i.e., the Masters

of tugboats who, pursuant to their collective agreement at that time, were required to stand only six-hour watches for fifteen days and then were off duty for fifteen days.

Their request was subsequently granted in part, four additional pilots being licensed in January, 1964. In April, 1965, the pilots' establishment was again increased by four in response to a further request from the Pilots' Committee, bringing their number to seventy-four.

The pilots pointed out that, despite their increased workload, they have been able to give excellent service; a ship very seldom had to wait for a pilot and their accident rate was well below the national average. The excellence of their service was acknowledged by the Minister of Transport in a letter written August 31, 1961, to the Chairman of the Pilots' Committee complimenting him for the high quality of the pilotage service and quoting the Vancouver Chamber of Shipping as informing him of their complete satisfaction (Ex. 83). The Saguenay Terminals representatives added that, in their experience, the pilots were very co-operative.

This Commission was more fortunate than the Pilotage Authority. Some pilots had kept work-sheet records for their personal information and made them available to the Commission (Ex. 214).

With these records, together with other statistical information that was available or has been prepared at the Commission's request, a sufficiently accurate appraisal of the workload and working conditions of the B.C. pilots could be made.

GEOGRAPHICAL DISTRIBUTION OF ASSIGNMENTS

An idea of the geographical distribution of the pilots' work in the District was given in a statistical report (Ex. 221) showing percentages of assignments in November and December 1962, and January 1963. The percentage distribution remained substantially the same for the three months; their averages are as follows:

Assignments	Percentage of Total
In Gulf of Georgia Area.....	75.4
On West Coast of Vancouver Island.....	6.5
Between West Coast of Vancouver Island and Gulf Ports	5.4
Between North of 50° and Gulf Ports.....	5.9
Between North of 50° and West Coast of Vancouver Island.....	0.5
North of 50°.....	6.3
	<hr/> 100.0

Similar statistical information is not available for the other years but it can safely be surmised from other statistical information available that the pattern has changed little except for a slight increase in northern assignments. For instance, from the statistical data covering embarking and disembarking pilots (vide table, 1961-1967, p. 105), activities at Cape Beale and Triple Island increased somewhat more markedly but, when compared with the total increase in the District, differed from the previous pattern in favour of northern assignments in the order of 2.3 per cent.

The pattern in percentage of total number of assignments has remained relatively the same for trips involving boarding or disembarking outside the District:

	1961	1962	1963	1964	1965	1966	1967
	%	%	%	%	%	%	%
Trips to and from ports in California, Oregon and Alaska (Ex. 1160).....	0.02	0.06	0.03	0.03	0.02	0.03	0.03
Trips to or from ports in the State of Washington, mainly Puget Sound (Ex. 205)....	9.8	4.9*	1.5*	8.2	10.7	9.5	10.2

* The decrease in 1962 and 1963 is due to the Puget Sound dispute (vide pp. 31-33).

Statistics indicate that, in the decade 1957-1966, the workload in number of assignments per pilot has clearly remained the same (for actual details, vide *Appendix B(2)*). During that period, the total number of times pilots were employed increased by 38.7 per cent while the pilots' establishment increased by 45 per cent. The average number of annual assignments per pilot as per establishment was 131.2 in 1957 and 125.5 in 1966. In terms of assignments per month, taking into consideration the fact that pilots, whether officially or unofficially, have regularly taken two periods of thirty days annual leave, the monthly average for the ten months they were on duty was 13.1 assignments in 1957 as compared to 13.3 in 1966. During those ten years, the lowest monthly average occurred in 1961 with 12.4 assignments and the highest in 1964 with 13.7 assignments.

These monthly averages are confirmed by pilot McLeese's workload analysis (*Appendix E*). In November and December, 1962, which were average months, he did 14 and 12 assignments respectively per month; his number of assignments for the month of January, 1963, i.e., 20 (10 of which were of short duration), serves as a reminder that average figures do not necessarily convey the complete picture. The number of "jobs" may differ in a given month from one pilot to another, depending how assignments are arranged. The nine other pilots who submitted records for January, 1963, all worked

almost the same number of days, i.e., 24 to 26 days. One had 13 assignments, three 14, two 15, one 16, one 17, and one 18 (vide summary, p. 129) and the monthly average was 15.1 per available pilot. January, 1963, was also the highest peak in the number of assignments ever undertaken in B.C. up to that time. A sharp decrease immediately followed (vide graph, *Appendix C*).

The foregoing figures indicate that the pilots' workload in number of assignments per pilot per year has remained constant during the last decade and that, therefore, the increase in the pilots' strength has been proportionate to the increase in the pilotage load. If it is considered that the new ships that have come into service during that period are much faster and that, in general, ships are better equipped with aids to navigation (thus permitting speedier transits), it can be safely surmised that the B.C. pilots' working conditions have, in fact, improved somewhat as has been the experience in other Districts.

DISTRIBUTION OF ASSIGNMENTS THROUGHOUT THE YEAR

The pilot's total monthly assignments during the period 1956-1967 (Ex. 205) are recorded in graph form in *Appendix C*. This indicates a fairly regular pattern throughout the year although the pilots are somewhat busier during the fall and winter months¹². Except for a record low in September, 1958, which was a result of the longshoremen's strike (August 21 to September 14) and another substantial decrease in pilotage assignments during July-September, 1959, caused by the woodworkers' strike (July 6 to September 14), there have been no pronounced peaks or lows. When these variations are considered in terms of average workload at the individual pilot level, there is very little difference from month to month. For instance, except for the two lows previously mentioned, the largest difference between the maximum peak and maximum low in a given year occurred in 1962 with a difference of 200 assignments between the high of March and the low of September, which, when divided among the fifty-five pilots who were not on annual leave, indicate that, while the average for the year was 12.4 per month, in the March peak the average was 14.1; in the September low, the average was 10.5¹³.

The foregoing averages are based on the assumption that the pilots were always up to strength and that all pilots, except those on annual leave, were

¹² It was explained that the contracts for shipping grain from Vancouver usually expire in August and the new contracts are sometimes not concluded before October. Hence, there is a tendency to a downward trend in shipping at that time of the year (Ex. 1422).

¹³ The low in the summer of 1962 coincided with a threatened strike by the longshoremen. After prolonged negotiations, they had taken a vote which favoured strike action. The longshoremen did not actually go on strike but they carried out a "slowdown". It is believed that many ships stayed away from the port until the new labour contract was signed (Ex. 1422).

available for duty, i.e., $\frac{5}{6}$ of the establishment. The record indicates that vacancies are always filled shortly after they occur because a number of approved candidates are always available and waiting for a vacancy to occur. Illness, suspension and special leave are additional factors contributing to the non-availability of pilots. The Commission does not have sufficient data to compute the full incidence of these three factors but it would appear to be minimal. This conclusion is demonstrated by the very small discrepancy between the establishment figure and the effective pilot figure quoted in the annual report. The effective pilot statistic in the B.C. District is the

“number of pilots [that are] either available daily for assignment to duty or on regular annual leave but does not include any pilot who is not available for assignment to duty because of sickness, special leave or any other reason” (Ex. 1307).

The following table shows the slight effect of the four foregoing factors on the availability of pilots. The term “average establishment” means the establishment on a yearly basis taking into consideration any increase that occurred during the year:

Year	Average Establishment	Effective Pilots
1962.....	66	64.9
1963.....	66	64.1
1964.....	69.8	68.7
1965.....	72.6	70.4

AVERAGE TIME SPENT ON ASSIGNMENTS

Statistical figures about the average time on assignments, i.e., on pilotage duty not counting detention, travelling time or time waiting at outports, shed little light on the workload of the individual pilots in a coastal District for two reasons:

- (a) the great difference between the mileage involved in various assignments;
- (b) contrasted with a port-type District where the incidence of travelling and detention is minimal, the pilots in a coastal District (especially as extensive as the B.C. District) spend considerably more time in this way than actually piloting.

Therefore, care should be taken not to assume such statistics are representative of the workload of the B.C. pilot, particularly in comparison with the workload of the pilot in other Districts (vide Part I, pp. 148 and 149).

However, such information—as well as the averages derived from these statistics—has a certain meaning for the District concerned in view of the fact that on a yearly basis the workload is averaged among the pilots of the same District through the tour de rôle system.

In Districts where the Minister is the Pilotage Authority, an annual record is kept of the total hours spent by pilots on assignments as derived from individual pilot source forms. The following tabulation is calculated from the aggregate figure “Total Time on Assignments” appearing on these records (Exs. 1298, 1299 and 1300). The rest of the table is an analysis of time spent on assignments per pilot as per establishment on the basis of the year, the month, and the day, while not on official or unofficial leave, i.e., ten months per year and, on an average, twenty-three days per month of duty:

Year	Aggregate Hours on Assignment	Average Pilot Establish- ment	Yearly Average Hours Per Pilot	Monthly Average Hours Per Pilot	Daily Average Hours Per Pilot
1962.....	92,794	66	1,406	140.6	6.11
1963.....	96,004	66	1,454.6	145.5	6.33
1964.....	100,898	69.8	1,445.5	144.6	6.29
1965.....	100,134.1	72.6	1,379.3	137.9	6.00
1966.....	98,679	74	1,333.5	133.4	5.80
1967.....	96,288.8	74	1,301.2	130.1	5.66

As for the other elements that comprise the B.C. pilots' workload, there are no official statistics. Hence, there is a danger that some aspects will be over or under emphasized for lack of data to establish their proper place in the general picture.

As already stated, fortunately some pilots provided the Commission with work-sheets that they kept from time to time. Pilot R. McLeese's work-sheets for the month of November and December, 1962, and January, 1963, were checked with the source forms and completed where necessary. The information contained therein has been reproduced in graph form to illustrate the situation. Each graph is accompanied by a short analysis of the contents. In addition, there is a tabulation of the monthly totals of other work-sheets filed by other pilots which indicates that pilot McLeese's workload during these months was above average. Many of these are not as informative as those of Pilot McLeese because the time when the despatcher reached the pilot by telephone, or by other means, to give him his assignment was entered on the work-sheet as “ordered time”. This expression is meant to refer to the time when the pilot must report on board; in other words, the ship's

scheduled departure either from her berth or from the boarding station. This results in an exaggerated figure on the item "travelling time".

The work-sheets and graphs which show the details of the time spent on assignments, travelling time, waiting at outports, etc. give a fair demonstration how the B.C. pilots employ their time and also how the despatching system operates in the District. The analysis of how pilot R. McLeese spent his time during November, 1962 (*Appendix E*) shows:

- (a) He was on monthly leave the first $7\frac{1}{2}$ days of the month.
- (b) After he came available for duty, twenty-nine hours lapsed before he proceeded on an assignment.
- (c) On the 9th, he departed from Vancouver, his home station. Travelling time from his Vancouver residence to the Vancouver harbour berth where the ship lay is counted as one fixed hour. He proceeded at night after a delay of $1\frac{1}{2}$ hours. The run between Vancouver and Brothie Ledge took $7\frac{1}{2}$ hours. He returned immediately by plane to Vancouver, no doubt because there were enough pilots at the Victoria station to take care of all expected assignments in the area. Since the return trip is shown as 9 hours travelling time, obviously most of it was spent waiting for air transportation.
- (d) On the 11th, 30 hours after his return, he departed for his next assignment which was to take three days altogether. This was a two-pilot assignment from Port Alberni to Cape Beale and Ocean Falls. Travelling time from Vancouver to Port Alberni by ferry and bus, including waiting time before "ordered time", took 20 hours. After 1 hour's detention awaiting departure and 11 hours' detention on board *en route* while the ship navigated outside District waters, the two pilots shared the $7\frac{1}{2}$ hour run to Ocean Falls. There they waited $10\frac{1}{2}$ hours until the ship was ready to proceed to Duncan Bay. Departure was delayed $\frac{1}{2}$ hour, after which the two pilots shared the $17\frac{1}{2}$ hour pilotage run up to Duncan Bay. From there, pilot R. McLeese returned by plane to his Vancouver station which he reached in 4 hours.
- (e) Twenty-six hours later, on the 15th, he proceeded on his third assignment (fourth "job") which was also to be an extensive tour of duty in which he would perform three "jobs". This was a round trip in the northern part of the Gulf of Georgia. Presumably, there was a shortage of pilots at that time at Nanaimo because such an assignment should be taken by a pilot from the Nanaimo pilot station. The complete duration of this assignment was 2 days and 19 hours. The pilotage run from Nanaimo to Texada Island took 5 hours but he had to wait there for 29 hours until the ship was ready to return. The pilotage trip back

to Nanaimo took 4 hours. Presumably because there was still a shortage of pilots at Nanaimo, he remained there for $16\frac{1}{2}$ hours in order to perform a move in Nanaimo harbour the day after his arrival. After this, he returned to his Vancouver station.

- (f) Two days elapsed before the next assignment—a move in Vancouver which he performed on the 20th.
- (g) The next assignment on the 21st was also a move in Vancouver.
- (h) On the 22nd, he took a ship from Nanaimo to the limit of the New Westminster District; pilotage time $4\frac{1}{2}$ hours.
- (i) In the late afternoon of the following day, the 23rd, he took a ship from Vancouver to Brothie Ledge; pilotage time 7 hours. Travelling time for the return trip *via* ferry and bus took 12 hours.
- (j) Twenty-seven hours later on the 25th, he performed a move in Vancouver.
- (k) On the 27th, $39\frac{1}{2}$ hours later, he did a short assignment of approximately $2\frac{1}{2}$ hours piloting between Vancouver and Port Moody.
- (l) On the 28th, $29\frac{1}{2}$ hours later, he proceeded on another extensive assignment which kept him away one day and fifteen hours while he performed pilotage twice. Travelling time from Vancouver to Brothie Ledge, where he boarded the ship, was 14 hours and 20 minutes. Since he proceeded by plane, most of that time he was resting and waiting at Victoria. The pilotage trip took 5 hours and 50 minutes but the ship had to wait off Vancouver $15\frac{1}{2}$ hours waiting for a berth. Pilotage from the anchorage to the berth, including berthing, took 2 hours. Although two pilotages were done, it was only one “job” which had been interrupted.

The highlights of the December and January assignments (*Appendix E*) are as follows:

In December, pilot McLeese had a stretch of duty which lasted 6 days and 3 hours: during the night of the 13th-14th, he took a ship from Vancouver to Brothie Ledge, $7\frac{1}{2}$ pilotage hours; from there he proceeded by land transportation to Harmac for a two-pilot assignment to Ocean Falls and return to Vancouver, lasting $29\frac{1}{4}$ hours; both pilots remained at Ocean Falls 2 days and 13 hours waiting for the ship to prepare for the return trip to Vancouver; on the return trip, pilotage was also shared by the two pilots; it took $28\frac{1}{4}$ hours pilotage to reach the approaches of Vancouver harbour where they had to wait 6 hours for a berth; berthing took 45 minutes.

In December, he also had three Gulf assignments: one from Powell River to Vancouver, 7 hours and 45 minutes, to reach Vancouver where he had to wait 4 hours before berthing which took 2 hours; on the 21st and 22nd, two trips from New Westminster District to the Brothie Ledge area. His six other assignments were either movages or trips of not over 2 hours' duration in the vicinity of Vancouver.

January was a very busy month for pilot McLeese but, of his 20 assignments, 10 were movages or trips of less than 2 hours each in the vicinity of Vancouver.

On the 14th and 15th of January, he did two assignments in 25 hours—a round trip, Vancouver-Brothie Ledge. On the 14th, he proceeded to Brothie Ledge where, rather than being sent back by plane or ferry to his Vancouver station, he was retained at the Victoria station overnight to take another trip from Brothie Ledge to Vancouver on the 15th.

In January, he also had one extensive tour of duty which lasted 4 days and 9 hours. On the 19th, he proceeded with another pilot from Vancouver on a northern assignment to Kitimat *via* the inside passage; the pilotage trip lasted 32 hours. They were detained at Kitimat for 13 hours while the ship was loading and unloading. The return trip was to Port Alberni. The pilotage run from Kitimat to McInnes Island took 10 hours which he also shared with the other pilot. Both were then detained on board for 19½ hours while the ship travelled outside District waters. They resumed pilotage when the ship entered pilotage waters at Cape Beale; this shared turn of duty took 4 hours. At Port Alberni, the two pilots left the ship. The other pilot returned to his base but pilot McLeese was ordered by the Vancouver despatcher to remain at Port Alberni to wait for a further assignment which was to take the same ship from Port Alberni to sea the day after. Waiting time was 17½ hours and the trip to sea 1½ hours, after which he returned by bus and ferry to Vancouver. No doubt pilots were not available in Nanaimo and the despatcher in Vancouver considered it preferable to keep pilot McLeese at Port Alberni rather than have him return to Vancouver and send another pilot from there.

On January 24th-25th, he had one job which took him in all 27 hours. This was a trip from Vancouver to Port Alberni *via* the Strait of Juan de Fuca. The pilotage trip from Vancouver to Race Rocks took 6 hours, after which he was detained on board for 9 hours until the ship reached pilotage waters off Cape Beale. From there to Port Alberni, pilotage took 5½ hours during which the ship had to wait 45 minutes for a berth.

The table hereunder is a comparative summary of the breakdown into its elements of the time away from home of pilot McLeese during these three months (Appendix E).

WORKLOAD OF PILOT R. McLEESE

Analysis of Time Away from Home	November 1962	December 1962	January 1963
Time piloting.....	56.5	70.4	99.3
Rest time on two-pilot assignments	12.5	29.1	23.0
Travelling time including waiting time before "ordered time".....	88.0	63.5	92.0
Detention:			
—awaiting departure after "ordered time".....	4.5	3.0	1.5
—aboard ship <i>en route</i>	11.0	10.0	29.2
—at outport awaiting ship at agent's request.....	55.0	70.5	61.0
		74.0	13.0
			43.7
Cancellation.....	0.0	1.0	0.0
Time away from home awaiting assignments at despatcher's request.....	16.5	0.0	26.7
Total Time Away From Home....	244.0	238.5	284.7
Number of "jobs" excluding cancellation:			
—assignments over two hours..	9.0	6.0	10.0
—movages and assignments of less than two hours.....	4.0	6.0	10.0
Total Number of Assignments.....	13.0	12.0	20.0

SOURCE OF INFORMATION: EX. 214.

COMMENTS

This table and the information contained in Appendix E prompt the following remarks:

- (a) Each item shows wide variations from month to month for two reasons:
 - (i) Assignments in a coastal District like B.C. are of many kinds.
 - (ii) A special despatching system has been adopted to provide proper rest and leave before reassignment and, at the same time, to take advantage of the pilots' location throughout the District before assignments are made.
- (b) In a coastal District, travelling time (including waiting time before "ordered time") and detention are both as important as time spent piloting. This is in sharp contrast with port and river pilotage where trips are generally uniform and boarding facilities are available at the beginning and end of assignments.

- (c) The B.C. pilots have stated that ninety per cent of their pilotage work is at night, i.e., between 5:00 p.m. and 8:00 a.m. This statement may be true, but it is not borne out by analysis of pilot McLeese's work for three months. Presumably, the explanation is that pilot McLeese had more than his share of northern assignments which, according to evidence received, normally occur only every four months. However, this illustrates how irregular assignments are as far as the pilot's working day is concerned. The basic reason is that, since pilotage is a service, requirements must be met when and where they occur. Provided a pilot is well-rested, he must be prepared to proceed on duty at any time of the night or day, which makes his working hours very irregular.
- (d) It is apparent that, from the point of view of safety, the pilots are not overworked. In addition to their sixty days of official annual leave and seven and a half days of unofficial monthly leave, they have time to take adequate rest between assignments. During protracted assignments, the situation is ideal because one pilot relieves the other after a certain number of hours on duty.
- (e) When the total time away from home is considered, time on duty reduced to a weekly basis would have meant for pilot McLeese—for the three months reported on—57, 53.7 and 64.1 hours weekly. This, however, can not be compared with the working hours of any other group of professionals or employees because the irregular hours of work place the pilot at a disadvantage in a comparison but, on the other hand, give a false picture when compared to mariners whose time on board between turns of duty is not counted in their workload and whose working hours do not contain such items as travelling time between residence and boarding point. However, in order to fix a proper remuneration, all these items have to be taken into consideration although their individual relative value must vary. Reference is made in this respect to the solution adopted in the State of Queensland, Australia, to define the working conditions of the civil servant pilots where, *inter alia*, the pilots' time is divided between "active time" and "passive time", one hour of duty being credited for each three hours' passive time (vide Part I, *Appendix XIII*, p. 779).
- (f) The foregoing statistics give only an incomplete picture. For instance, while pilot McLeese had an extraordinary number of northern assignments, during those three months he neither boarded nor disembarked outside the District, situations which occur much more frequently than northern assignments. When such instances occur, a considerable increase in travelling time and detention on board will be recorded. Therefore, in order to have a more com-

plete picture and to discuss and determine the working conditions of pilots in the B.C. District, detailed and complete statistics of all assignments would have to be compiled.

(7) VANCOUVER HARBOUR MOVEMENTS

In Vancouver, the Harbour Master allocates berths or anchorages to ships and also controls all harbour movements. However, the pilots perform their pilotage duties without direction from the Harbour Master; they have frequent meetings with him and their common problems are usually solved by a discussion. Similarly, the pilots are regularly consulted regarding the best location of piers, harbour installations and aids to navigation throughout the District.

Tidal currents do not normally interfere with ship movements in the harbour of Vancouver but sometimes pilots recommend when movements should be made, particularly in the vicinity of the Second Narrows bridge when there is a strong flood tide. In fact, the despatchers are well aware of this problem and inform the shipping agents accordingly.

The pilots feel that there should not be any traffic control system operated in Vancouver harbour by an outside authority. They maintain that, if they were supplied with compact, portable radiotelephone sets, they could do the work themselves. At the time of the Commission's hearing, they had been supplied with a number of radiotelephones which were seldom used because of their bulk and weight. However, this situation has since been corrected. The pilots have been issued light portable VHF sets for short distance ship-to-ship or ship-to-shore communications. By an amendment dated January 12, 1966 (P.C. 1966-79), the General By-law was amended for that purpose; it provides for a radiotelephone charge of \$1.75 for every assignment (Exs. 195 and 1493 (g))¹⁴.

With regard to harbour traffic control in Vancouver, it was noted that the radar station situated in the centre of the Lion's Gate Bridge (First Narrows) is used for traffic information and as an aid to navigation but not for traffic control. This station has been in operation for quite some time and has proved its usefulness. It is equipped with two radar screens to give the bridge observer coverage both upstream and downstream. An observer is on watch at all times. Upon request, he also counts into a loud speaker and, by the sound of his voice, a pilot can judge whether he is heading for the centre of the bridge. The pilots stated that this procedure was helpful to them in foggy weather when piloting a ship not equipped with radar.

¹⁴ The B.C. pilots have been supplied with seventy-seven sets of *Motorola* "Handie-Talkie" portable radiotelephones with a normal range of 15 miles or "line of sight". They operate on VHF Channel 6, Intership (156.5 m/cs.) and Channel 11, Pilotage (156.55 m/cs.). Many ships fitted with VHF do not have these channels. A ship's VHF set is often fitted in the chartroom or at the rear of the wheelhouse, which makes it impractical for use when coming alongside, or in radioroom where it is not readily available. Hence, the pilots must carry their own portable sets at all times—the radiotelephone charge is levied on this understanding.

6. PILOTS' REMUNERATION AND TARIFF

(1) PILOTS' REMUNERATION

The amount of the actual remuneration paid to the pilots in a District is an item of major importance when the tariff is determined and the working conditions of the pilots are established. The absence of a legislative definition of the term has given rise to a number of different interpretations. Unless one meaning is adopted and used consistently in statistics, discussions and negotiations, a basic misunderstanding ensues and the service as a whole suffers.

The Canada Shipping Act contains no statutory definition of the term "pilots' remuneration" although it is used twice in sec. 329. As seen in Part I of the Report (Part I, C.6, p. 182), from the context of the Act, "pilots' remuneration" and "pilots' earnings" (which are also not defined) have the same meaning in Part VI where they are contrasted with "pilotage dues". This expression refers to the price a ship has to pay for a given pilotage service, while the former terms refer to the consideration of the pilotage contract from the pilot's point of view after the two deductions authorized by the Act have been effected, i.e., pilot vessel earnings and assessments pursuant to sec. 328 to meet District operating expenses. A clear distinction has to be made between District operating expenses and the pilots' own expenses (vide Part I, C.5, pp. 107-109).

These distinctions, which would be clear enough in the free enterprise system to which the provisions of Part VI apply, are very difficult to make in a system where, in spite of the law, the provision of pilotage services is fully controlled by the Authority. The individual pilot is no longer a party to the pilotage contract and the operation of the service has become part of the operation of the District. Hence, most of the pilots' operating expenses are now District expenses and the pilots have become, in fact if not in law, employees whose remuneration means net earnings and not gross earnings as before. On account of the important bearing of this question on such vital matters as establishing the pilots' target income, tariffs and working conditions, the term must be clearly defined.

VARIOUS CONCEPTS OF PILOTS' REMUNERATION

The analysis hereunder of the figures for 1962 shows that there are different concepts of what is meant by pilots' remuneration as well as substantial variations in the statistics. Although the figure quoted in para. (c) is considered the most meaningful, the pilots' "take home pay" shown in para. (a) is used (unless otherwise indicated) as the basis for studying the evolution of the pilots' remuneration.

(a) *Income Reported for Income Tax Purposes ("Take Home Pay"):*
\$14,554.90

The pilots consider their individual pilot's income as reported for income tax purposes their remuneration or their "take home pay". Since the pilots in this District are considered employees of the Authority for income tax purposes, the Authority effects deductions at source, prepares their *T4* returns as if it was the employer, and ensures that no deductions applicable to self-employed persons are included. The B.C. pilots do not have the problems that exist in some other Districts (e.g., having to seek a deduction for travelling expenses in Quebec) because in B.C. the pilots are reimbursed and their expenses are charged to the pool. Nor does the figure include such items as the expenses of the pilots as a group or their contributions to the pension fund.

This sum was arrived at by calculating the pilot's share of the pilots' net earnings (\$934,661.06) reported in the 1962 statement of revenues and expenses for the British Columbia Pilotage District. In 1962, there were sixty licensed pilots and six probationary pilots. The share of each of the former group was \$14,554.90 and of the latter \$10,916.16 (vide Appendix F). For ready reckoning, the probationary pilots are treated here and in the next set of figures as licensed pilots, making the resulting average figure slightly less than it would have been otherwise for the full-fledged pilot. In this instance it is \$14,161.53.

It is a misnomer to call this share of the pool "take home pay" as the pilots themselves do. The exact meaning of the term is the amount which is taken home after all deductions have been made at source, such as income tax, union dues, contributions to the Canada Pension Plan, group medical and hospitalization plans. In the case of the pilots, only the disbursements chargeable against the group are paid out of the pool prior to sharing; the others, which vary with each individual, are effected afterward. Hence, the individual pilot's actual take home pay is less than the amount in question here and varies from one pilot to another. When the expression "take home pay" is used later in the Report, it is subject to this reservation.

(b) *Pilot's Share of District Net Revenue Less Pension Fund Contribution:*
\$14,838.88

This figure is the share per pilot of the net revenue of the District, derived from the pilotage dues minus the approved deductions, shown in Appendix F as \$953,403.88 "paid to or for the pilots". The net revenue consists of the net earnings shown in (a) above plus the pilots' group expenses, i.e., insurance \$18,508.32, and telephone expenses \$234.50, or an increase of \$283.98 per pilot.

(c) *Pilot's Share of District Net Revenue: \$16,725.31*

This figure is the amount in (b) above plus the pilots' share of the contribution paid out of pilotage revenues to the pilots' pension fund. From Appendix F, *Liability Toward Pension Fund* \$124,504.12, each pilot's share was \$1,886.43.

(d) *Gross Earnings per Pilot on Strength: \$19,523.82*

This figure is quoted in two statistical tabulations prepared by the Department of Transport for those Districts where the Minister is the Pilotage Authority:

- (i) In the table entitled *Pilots' Earnings—1962*, this amount is quoted under the heading *Earnings per Pilot on Strength* (Ex. 1297).
- (ii) In the table entitled *Comparative Statement of Pilots' Earnings & Workload*, the amount is quoted under the heading *Gross Earnings per Pilot on Strength* (Ex. 1299).

This figure is calculated by dividing the gross pilotage revenue \$1,288,572.16 by 66, the number of pilots on strength in 1962.

Gross pilotage revenue consists of the following items shown in Appendix F:

Pilotage dues belonging to pilots.....	\$1,288,499.55
U.S. exchange.....	2.70
Audit adjustment.....	69.91
	<hr/>
	\$1,288,572.16

It comprises all District earnings, except those paid into the Consolidated Revenue Fund of Canada, i.e., pilot vessel service earnings, and three small items of revenue: fines collected from pilots, examination fees, and licence fees. It differs from the aggregate amount from which (c) is calculated in that no deduction is made of the pilots' travelling expenses incurred in the performance of their assignments (\$209,467.32) for which they are reimbursed by the Authority (in contrast with the District of Quebec, for instance, where they are not), and one small extraordinary item of District operating expense: stamps and stationery (\$1,196.27).

This concept of a pilot's remuneration would be correct if he were an independent contractor since his own operating expenses would be included, but it becomes misleading when applied to pilots whose status is *de facto* employees and whose remuneration is in the nature of a salary and, therefore, a net revenue.

(e) *Gross Earnings per Effective Pilot: \$19,859.32*

This figure is quoted in two statistical tabulations prepared by D.O.T. for Districts where the Minister is the Pilotage Authority:

- (i) In the table *Pilots' Earnings—1962* under the heading *Earnings per Effective Pilot* (Ex. 1297), referred to in (d) (i) above.
- (ii) In the table *Comparative Statement of Pilots' Earnings & Workload* under the heading *Gross Earnings per Eff. [sic.] Pilot* (Ex. 1301).

This figure is the same as (d) except that the gross revenue shown is divided by the number of effective pilots, 64.885, rather than the 66 pilots on strength.

(f) *Share of Total Cost of District: \$23,433.86*

Under the free enterprise system and scheme of organization provided by Part VI C.S.A., each District is expected to be financially self-supporting with the pilots meeting both their own and the Pilotage Authority's operating expenses out of their gross revenues. In such a system, the total revenues of the pilots are synonymous with the total cost of pilotage for the District, i.e., whatever is received from the Crown in direct or indirect subsidies in addition to pilotage dues. In the B.C. District in 1962, these subsidies amounted to \$191,640 (not taking into account a share of the cost of the Ottawa headquarters, bringing its total cost to \$1,546,635 [vide Part I, *Appendix IX*, p. 655]). The average share per pilot is \$23,433.86.

To complicate matters further, D.O.T. has quoted net figures for items (d) and (e):

- (i) \$16,350.07 is quoted in the table *Comparative Statement of Pilots' Earnings & Workload* under the heading *Net Earnings per Pilot on Strength* (Ex. 1299).
- (ii) \$15,973.41 is quoted in the table *Comparative Statement of Pilots [sic] Earnings & Workload* under the heading *Net Earnings per Eff. [sic] Pilot* (Ex. 1301).

These amounts were arrived at by deducting for the figures (d) and (e) the share of the aggregate pilots' travelling expenses per pilot on strength, or per effective pilot, i.e., \$3,173.75 or \$3,885.91 respectively.

RELATION BETWEEN PILOTS' REMUNERATION AND TARIFF

The pilots' income is derived entirely from pilotage dues as established by the tariff. They receive what remains after certain deductions are made and expenses paid. Because all District operating expenses and services are paid by the Crown (except one small item for stamps and stationery), the actual situation is that all pilotage dues, except charges for pilot boats and radiotelephones, belong to the pilots. Because their earnings are pooled and

shared equally, they object to any internal arrangements for providing services that would reduce their income, e.g., creating pilot stations that would not yield per pilot revenue comparable to the revenue earned by a station where the pilots are kept fully occupied (vide p. 98). Since there is no ceiling on the pilots' income and no minimum, a direct relation exists between tariff and pilots' earnings and their income is directly affected by the amount of work done and the dues charged for that work. Hence, the pilots consider that any change either in tariff or in arrangements for the provision of services affects their personal income. It is this interrelationship between tariff and pilots' income which makes it necessary to study them together.

The shipping interests consider tariff a sort of tax levied to maintain a public service and base their position on the effect of tariff on their business; in other words, what pilotage costs a ship.

While the present representative of shipping in the B.C. District—the Chamber of Shipping of British Columbia—is of the opinion that the B.C. pilots are better paid than they should be, it maintains shipowners are not interested in the actual amount of pilots' earnings but merely in what the pilotage service costs ships. They state that it is the responsibility of the Pilotage Authority to work out with the pilots what their remuneration and working conditions should be and that the shipping interests should not be involved in such discussions. The Chamber objects to being forced into an argument over pilots' earnings, particularly since they regard the pilots as a qualified, co-operative group who provide good service.

On the other hand, they consider that determining the tariff is a matter that concerns only themselves and the Pilotage Authority—not the pilots. In such deliberations, it is their responsibility that all the factors affecting shipping interests are considered. For instance, if any group connected with shipping is underpaid or overpaid, they claim repercussions will be felt throughout the industry and, hence, an increase in the tariff may cause an increase in the cost of the various services involved in shipping. Therefore, they feel that the pilots' remuneration should be comparable to the cost of similar services in similar fields. The difficulty here is that there is no service similar to pilotage in other localities and, even then, the basic differences between pilotage services makes any comparison of questionable value, unless all the governing factors of each of the services being compared are fully appraised (vide Report, Part I, C. 6, pp. 146 and ff.).

PROCEDURE FOR ESTABLISHING THE TARIFF

In theory, according to subsec. 329(h) C.S.A. and sec. 6 of the General By-law of the District, the tariff is set by the Pilotage Authority by regulation, subject to the Governor in Council's approval. In the British Columbia Pilotage District, however, the tariff is, in practice, established through a process resembling a labour collective agreement between the party

providing the labour (the pilots) and the party using the labour (the shipping interests). The meetings of the Advisory Committee (vide p. 64) have developed into negotiation forums with the local representative of the Pilotage Authority acting as mediator.

The Vancouver Chamber of Shipping had three complaints about these meetings. First, they objected to an official of the Canadian Merchant Service Guild being allowed to attend as the pilots' representative. They reported that, in 1962, a Guild representative tried to be admitted but this right was denied after the Chamber had objected. The Chamber feared (as they claimed experience had shown elsewhere) that discussions with the Guild might degenerate into a trade-union type of negotiation. Second, they pointed out that negotiations with the pilots on tariff are fruitless because the shipping interests have no authority to negotiate. The resultant deadlocks are likely to cause ill feeling and disrupt the service. Third, they complained of the absence of basic principles and a procedure for dealing with tariff. Agreement is difficult to achieve because the two sides are not talking about the same thing: the pilots are thinking of the effect of tariff on their income, and the shipping interests of its effect on their industry.

Recently, events took a turn that could not have been unexpected in view of the negotiation type of procedure the parties were obliged to follow and the passive attitude adopted by the Pilotage Authority which appeared to consider fixing the tariff merely a private labour agreement rather than a matter of public concern.

During January, 1967, the pilots made a request for tariff changes which would have resulted in a substantial increase amounting to approximately thirty per cent. Negotiations broke down when the Chamber of Shipping of British Columbia refused to agree to an increase exceeding five per cent. The dead-lock was solved by the Pilotage Authority which granted a six per cent general increase (P.C. 1967-1177 dated June 8, 1967). The B.C. pilots felt aggrieved because "proper discussions" had not taken place prior to the decision made by the Pilotage Authority. They then made representations to the Pilotage Authority to make a form of bargaining procedure between themselves and the Chamber of Shipping obligatory before any change in the rates could be made by the Authority. Because assurance that their suggestion would be followed was not forthcoming from the Pilotage Authority, they resorted to strike action on November 15, 1967. This took the form of a general meeting of the Pilots' Corporation. On the evening of that day, the Chamber of Shipping gave its consent to the proposed procedure and the pilots returned to duty. Subsequently on November 29, 1967, a memorandum of understanding defining the rules for discussing tariff rates was signed by both parties (Ex. 1493(f)). It recognizes as sole negotiators the "Chamber of Shipping of British Columbia", as shipping representative, and "The Corporation of British Columbia Coast Pilots" as the pilots' representative, under the chairmanship of the Regional Superintendent of Pilots.

It is a compulsory procedure of negotiation wherein dead-locks or failure to negotiate are resolved by binding compulsory arbitration decided by an arbitrator appointed by the "Minister of Transport". Although it is not explicitly mentioned in the document, it is obvious that it is expected the Pilotage Authority will not modify the tariff unless the proposed changes have been debated according to the agreed negotiation procedure and that the result of such negotiations will be binding on the Authority whose rate-fixing power is thereby reduced to the perfunctory process of drawing up regulations to express the decision so reached. If the Pilotage Authority is to continue to enjoy any discretion on the matter, the whole process becomes meaningless.

Unless the pilotage service in a District is strictly a private service to shipping and public interest is not concerned except very remotely, it is considered that fixing the tariff, just like determining the qualifications and working conditions of the pilots, should not be left to the parties directly involved who are primarily motivated by their private interests. Reference is made to the Commission's General Recommendations 18, 19, 20, 21 and 24.

(2) TARIFF

Since the tariff provides the basis on which the price for given pilotage services to ships is calculated, its computation becomes a very complex process in a coastal District where the distance factor is essentially variable. On one hand, the distance run must be taken into consideration so that charges for various trips remain consistent and equitable; on the other hand, in the absence of a regular run which provides the majority of pilotage trips in the District (such as occurs in a harbour or river type District), a different common denominator for calculations has to be found so that the tariff will yield the revenues needed to cover District expenses, including the pilots' target income. (Vide Report, Part I, C. 6).

The present rate structure in B.C. was adopted in 1958. The pre-1958 tariff was built up over the years item by item, doubtless as a carry-over from the pre-1920 period when pilotage was organized, not on a coastal basis but on a port basis, with separate Districts for each major port and tariffs based on pilotage trips to or from these ports. Therefore, the tariff was a list of *ad hoc* prices for specific pilotage runs. Reduced rates were provided when a ship called at more than one port and mileage became a factor only with regard to the occasional trips to the Northern Region. The changes whose aim was to adjust the pilots' income took the form of a general increase or decrease of the tariff as a whole. For instance, during World War II, the pilots' request for a surcharge of 25% on all rates was approved in order to keep the pilots' remuneration at a reasonable level but, when the War ended, the surcharge was reduced to 10% at the request of the Vancouver Chamber of Shipping which claimed that the original surcharge was

a war-time measure which was no longer justified. However, in February, 1958, the surcharge was increased to 14.4% and in April, 1958, to 21%. The pilots explained that the purpose of the last two tariff increases was to maintain individual pilot incomes despite the two increases in their numbers. The changing pattern of maritime trade combined with the pilots' requests for improvements in their working conditions resulted in numerous specific additions and amendments, e.g., detention charges.

The resultant accumulation of items made the pre-1958 tariff structure cumbersome and difficult to interpret. The tariff was rewritten in 1958:

- (a) to provide a simpler way to compute rates;
- (b) to make tariff charges more uniform throughout the District;
- (c) to reduce the charges for ports in the Northern Region by spreading the cost;
- (d) "to give the pilots a fair remuneration, about \$12,000 per year without excessive hours of work and proper leave" (Ex. 1156).

The pilots understood clearly why a target income of \$12,000 was adopted at that time. The preamble of a memorandum they addressed to the Department on March 12, 1957, reads as follows (Ex. 1156):

"The B.C. Pilots Committee understand that a complete revision of our Pilotage rates is underway at the present time and we also understand that the department is trying to simplify the rate structure by having a rate in to each Port and also out of each Port plus a mileage charge between Ports. If this is properly calculated to give the Pilots a fair remuneration, about \$12,000 per year without excessive hours of work and proper leave time, then the Pilots will be quite satisfied."

At that time, the total cost of operating the service had been assumed by the Government. When the Minister became the Pilotage Authority in 1929, the remuneration of the Regional Superintendent and his staff and the cost of their office accommodation were assumed by the Department. On January 25, 1951, the Department assumed the cost of operation, maintenance and replacement of pilot stations, purchase, charter, hire and/or replacement of pilot vessels (P.C. 120-422 (Ex. 52)). At that time, pilot vessels in British Columbia were smaller than in other Districts, and this service was provided for the pilots by a boatman who was paid out of pilotage revenues. Under the 1951 arrangements, the Department of Transport reimbursed the pilotage fund for all expenses connected with pilot vessel service. In 1960, the Department of Transport took over this service (P.C. 1959/19-1093 dated August 27, 1959 (Ex. 52)). The crews of the British Columbia pilot vessels became employees of the Government and the pilot vessels were transferred to the Department of Transport. The transfer took the form of a mere transfer of title without any compensation being paid the pilots. The Department of Transport reasoned that, since these

vessels had been bought out of pilotage revenues, they were not the property of the pilots but of the District and, hence, the property of the Crown. The Government had assumed all their operating costs in order to guarantee the pilots adequate remuneration without being obliged to increase pilotage rates and, hence, the cost of shipping operations, a step which was not considered desirable when the Government was providing assistance to shipowners in other ways. Failure to do so would have meant decreasing the pilots' remuneration (Ex. 52). (Vide Report, Part I, C. 5, pp. 116 and ff.).

The new tariff structure was sanctioned Oct. 16, 1958 by P.C. 1958-1435. The most substantial change consisted in adopting uniform rules for computing charges for pilotage trips by using factors which took into consideration distance run and the added work of entering port, berthing and unberthing, and leaving port:

- (a) the mileage rate was fixed at 88¢ per mile of distance piloted regardless of the size of the ship;
- (b) the port rate was based on both ship dimensions and laden situation, i.e., the tariff provided a fixed charge of ½¢ per ton and \$1.00 per foot draught; at the same time gross tonnage replaced net.

For this purpose a vessel changing pilots at Sand Heads was considered to be entering or leaving a port (1958 amendment to By-law, Schedule "A", subsec. 9(3) (P.C. 1958-1435)). In addition, a sort of surcharge was made by charging ships the pilots' travelling expenses on assignments outside the Southern Region. These expenses for assignments inside the Southern Region were considered when the tariff was drawn up and included in the basic dues. This requirement on northern assignments became, in fact, a surcharge considering that no deduction is given for the part of the basic rates covering the pilots' travelling expenses in the Southern Region. For the year 1965, it appears from the table on page 96 that this surcharge amounts, on the average, to 35.6% over the basic charge.

It was generally recognized that the main advantage sought by the tariff review had been achieved, i.e., simplicity.

After a few months' experience it was found that charges from the new structure were only 3.89% higher than those from the former tariff. These figures were arrived at by calculating all pilotage charges under both the old and the new rates and making an exact comparison. Considering the number of factors involved in computing the tariff, this was considered a satisfactory result.

Under the new tariff, the target income was not only attained but quickly surpassed as ships grew larger and traffic increased. The full fledged pilot's take-home pay (income reported for income tax purposes, vide p. 133) was \$13,542.04 in 1957; it decreased slightly in 1958 to \$13,298.17 when the new tariff applied only to the last quarter but increased to \$14,921.91 in 1959 (Ex. 209).

The Vancouver Chamber of Shipping had agreed to the proposed tariff on the understanding that the pilots' remuneration would remain at the same level, i.e., that periodical revisions would be made to keep the pilots' annual income in line with target income. On December 3, 1959, the Vancouver Chamber of Shipping wrote to the Department of Transport recalling the understanding to review the tariff if pilotage charges proved higher than planned. Negotiations in Vancouver between the pilots and the Chamber of Shipping were broken off because the pilots insisted on having a representative of the Canadian Merchant Service Guild accompany them to any meeting and the Chamber refused to attend if the Guild's representative came. (p. 137). Although negotiations were broken off, the Pilotage Authority decided that the target income agreement should be respected. Hence, it lowered the tariff by 3.89% by decreasing the mileage charge to 82¢ per mile of distance piloted (P.C. 1960-841 dated June 17, 1960, Ex. 195(27)). Since this reduction affected only the last months of the year 1960, the pilots' average take home pay for that year was \$16,315.18.

From 1960 to 1965 the rates were not changed. New negotiations had commenced in 1961 when the pilots asked for a general increase of some 15% which would have resulted in an annual income of \$21,000. These discussions broke down when the Puget Sound dispute occurred (vide pp. 31-32). As a result, the pilots' take-home pay went down to \$15,614.58 for the year 1961 and to \$14,554.90 in 1962.

As a result of a Treasury Board recommendation, the Deputy Minister, Department of Transport, wrote a letter dated September 12, 1961 (Ex. 1157), to all Pilotage Districts where the Minister was the Pilotage Authority stating that, in view of the level of the pilots' income, it was considered they should make a contribution to administration and other pilotage costs which the Government had assumed in order to ensure they received appropriate remuneration. The amount the pilots were receiving showed that Government assistance was no longer required. The Department proposed setting a ceiling on the pilots' income in each District and applying any excess to meet pilotage expenses. Strong objections were received from all pilots' groups. The St. Lawrence pilots went on strike in April, 1962, and the B.C. and Saint John, N.B., pilots threatened to join. No further action was taken by the Pilotage Authority since it was felt that many additional changes were needed in the pilotage organization which was to be investigated by the present Royal Commission created as part of the settlement of the St. Lawrence pilots' strike. (Vide Part IV, Quebec District, *The 1962 Strike*.)

At the time of the Commission's hearing in Vancouver in March, 1963, the pilots and the shipping interests were again negotiating about the pilots'

proposal to add 7 pilots to their number and to increase the tariff proportionately to maintain their earnings at the same level (vide p. 120). Agreement had been reached on only a few small items of tariff. Both sides took the opportunity to debate the issue before the Commission.

The Chairman of the Pilots' Committee stated that the pilots would not object to being paid a salary provided it was commensurate with the services they provided. He could not suggest the right amount but he claimed that the \$15,000 the pilots were receiving at that time was not a good salary because, in his opinion, they were working excessive hours.

He agreed to the suggestion that the average number of hours worked daily by the British Columbia pilots was $4\frac{1}{2}$ to 5 hours, but he added that they were on duty 24 hours a day every day of the month except when they were on leave. He expressed the opinion that a 40-hour week plus holidays, accompanied by good working conditions, might be considered as a basis. (On the workload question, vide pp. 119-131). He added that the pilots would like to have a guaranteed income, but were not asking for such an income and did not know how it could be provided.

He was against the proposal to impose a ceiling on pilots' income. In his opinion it would interfere with the pilotage service because, normally, the pilots accept more work knowing that they make more money as a result. If a ceiling were imposed, their incentive would be removed and they would not be so willing to work. Furthermore, he added that the pilots' income should not be limited because there is no guarantee their earnings will be maintained if traffic decreases. In that event, with the present system they have to accept a reduced income as they have done in the past. They are also affected by economic conditions and labour disputes. He pointed out that there are also fluctuations in pay between winter and summer. He remarked that, although the number of ships arriving had gradually increased since the war, the pilots were always reluctant to add to their number to meet the growing requirements of the service because they share pilotage revenues among themselves and, hence, their remuneration is directly affected by their strength. They felt that a decrease in maritime traffic was always possible with the resultant adverse effect on their income. He added that when traffic increases they should receive higher remuneration because they work harder. He concluded speciously by saying that any demand they make for an increase in pilots' strength is, therefore, always a minimum and that, at the same time, they propose an upward revision in the tariff to avoid a possible loss of income. In other words, while they request more pilots in order to be relieved of the extra work imposed by increased traffic, they consider their remuneration should remain at the higher level attained on account of the same overwork.

The next tariff change occurred when the General By-law was consolidated in 1965. The main changes were as follows:

- (a) A port charge was made for piloting a ship merely in transit.
 (b) The mileage fee was raised to \$1.00 per mile piloted.
 (c) A uniform scale based on tonnage was provided for movages.

Thereafter the changes were as follows:¹⁵

- (a) In May 1966 (P.C. 1966-980 dated May 26, 1966)
 (i) the mileage rate was increased to \$1.10 per mile;
 (ii) pleasure yacht rates were raised from \$37.80 per day to \$75 per day plus the pilot's expenses as before;
 (iii) the detention charge was raised from a maximum of \$36.30 per day to \$60.
 (b) In June, 1967 (P.C. 1967-1177 dated June 8, 1967), a general surcharge of 6% payable on all pilotage dues was imposed.

The 6% increase in 1967 was a result of a request that the pilots made in January of that year for increases in tariff amounting to approximately 30% (vide p. 137).

Year	Pilot Estab- lish- ment	"Take Home Pay" ^a			Share per Pilot on Establishment		
		Average per Pilot on Establish- ment	Actual ^e		Net District Earnings ^b	Gross District Earnings ^c	Total District Pilotage Cost ^d
			Full- Fledged Pilot	Pro- bationary Pilot			
		\$	\$	\$	\$	\$	\$
1957.....	48	12,341.68	13,542.04	n/a ^f			
1958.....	50	12,242.79	13,298.17	n/a			
1959.....	53	14,532.30	14,921.91	n/a	n/a	n/a	n/a
1960.....	58	15,819.88	16,315.18	n/a			
1961.....	61	15,236.46	15,614.58	11,711.23	17,394.06	20,787.44	24,378.25
1962.....	66	14,161.53	14,554.90	10,916.16	16,725.31	19,523.82	23,433.86
1963.....	66	14,899.48	15,060.50	11,295.36	17,149.12	20,791.75	25,050.42
1964.....	69.8	15,046.52	15,364.01	11,522.98	17,301.74	20,936.86	25,089.79
1965.....	72.6	16,891.62	15,724.47	10,849.71	17,836.39	21,470.31	25,802.70
1966.....	74	15,797.07	15,984.12	10,971.83	18,191.24	22,163.64	n/a
1967.....	74	17,511.53	17,772.95	13,329.69	20,251.36	24,585.67	n/a

^a Vide p. 133.

^b Vide p. 133.

^c Vide p. 134.

^d Vide p. 134. The consultant accountants' study on which these figures are based covers only the five-year period 1961-1965 (vide Part I, *Appendix IX*, pp. 654-656).

^e Figures taken from monthly breakdown of revenues and expenditures (Ex. 205) and comparative tabulation (Ex. 209).

^f The figures for the years 1957-1960 are not readily available due to the change in accounting year in 1960 from fiscal year to calendar year.

The table above shows the amounts of the pilots' earnings from 1957 to 1967 calculated according to the main concepts given to this expression as defined earlier.

¹⁵ A further 6% increase was granted by Order in Council 1968-1059 dated May 29, 1968. Instead of raising the surcharge to 12%, all the rates in the Schedule (except the boat charge and the radiotelephone charge) were individually raised by 12% and the provision dealing with the surcharge was deleted (Ex. 195).

COMPARATIVE SALARIES OF MASTERS IN B.C. COASTAL TRADE

As seen earlier (vide pp. 120-121), the B.C. pilots attending the Commission's hearing contrasted their workload with a class of employees receiving a fixed salary, i.e., the Masters of tugboats. When the Vancouver Chamber of Shipping learned in 1959 for the first time the amount of the individual pilot's remuneration, they expressed their concern that this amount was unreasonable and in excess of what management and departmental officials received. While agreeing that pilots should receive more than Masters (since Masters are the source from which pilots are recruited), the Chamber did not agree that a pilot should be paid twice as much as the highest paid Master and urged that a "target income" be established.

It is considered that such a comparison is highly misleading, both because pilotage involves much greater responsibility and risk than office work and because the pilots' working conditions can not be compared with those of any group of salaried people connected with the waterfront (vide p. 130). However, because both pilots and shipowners referred to the remuneration of Masters, it is considered pertinent to sum up briefly the evidence received on this subject as well as their working conditions. The average earnings of the B.C. pilots in 1962 which can be compared to the salary of an employed person were the average share of the District net earnings, i.e., \$16,725.31 (vide p. 134). The 1962 level of pilotage earnings was the lowest since 1959 on account of the loss resulting from the Puget Sound dispute which the pilots themselves had caused.

As of January 1, 1962, the monthly salaries of Masters in the B.C. coastal trade plus fringe benefits detailed in various labour agreements were as follows:

(a) *Tugboat Class 1 Master—\$619.*

An agreement filed as Ex. 88, contains under 7.—*Hours on duty*:

- "(a) The parties to this Agreement subscribe to the principle of the eight (8) hour day in industry, but recognizing the impracticability of the eight (8) hour day in the B.C. Towboat Industry, agree that equitable compensation for any time worked over and above eight (8) hours per day shall be made by time off ...".

The work day is twelve hours, in fact. In tugs other than harbour tugs, it is divided into a two-watch system of six hours on and six hours off. For harbour tugs, there are 2 classes:

"(1) Eight Hour Shift Tugs:

(a) Hours on Duty:

The regular working day shall be eight (8) hours per day, forty (40) hours per week; all work in excess of eight (8) hours per day and/or forty (40) hours per week shall be considered and paid for as overtime at the regular overtime rates."

"(2) Twelve Hour Shift:

- (a) On tugs working a twelve hour shift 12 consecutive hours shall constitute a shift. Leave will be calculated on the basis of one day off for each day worked."

(b) *Westward Shipping Ltd.*—Senior Master \$770, Second Master \$745, Junior Master \$730, plus Room and Board for Approximately 22 days per Month.

These rates had been in effect since January 1, 1962. An overall increase of about 3% was anticipated according to a letter from Westward Shipping Ltd. dated March 13, 1963.

Westward Shipping Ltd. Masters actually work a 7-day week but to compensate for weekends they are given .4 of a day off for each day worked (thus aggregating a 40-hour week) plus one extra day per month.

Their Masters are on full pay for every day of the month although they work only 21 or 22 days. There is no pay or time off for overtime although the Masters often have to work overtime.

A three-watch system is kept, 4 hours on and 8 off. The Masters do their own piloting since these ships are exempted.

Each Master and the Company both contribute an amount equal to 5% of the Master's salary into a pension fund.

The total monthly pay of a Senior Master, including basic wage benefits and the Company's pension contribution but excluding value for board and lodging and the Company's contribution of 73¢ per month for Workmen's Compensation, amounted to \$842 in January, 1962.

Westward Shipping Ltd. has two tankers: *Standard Service*, 1,324 GRT, and *B.C. Standard*, 818 GRT, which are on regular runs as far south as the Columbia River, along the B.C. coast and up to Alaska. Tanker companies generally pay slightly higher wages than most passenger and freight companies on the Coast but Westward Shipping Ltd. pays only average salaries.

(c) *C.P.R. B.C. Coast Steamships Service*

Masters—\$600-\$685 per month effective September 1, 1962.

This salary is for an 8-hour day and a 5-day week. Overtime is paid at \$4.34 to \$4.95 an hour (Ex. 110). There are three Masters attached to the *Princess of Vancouver* which runs from Nanaimo to Vancouver with approximate wages of \$700 to \$800 per month. One Master works one day and then he is off two days; he works 24 hours a day in the ship making three round trips Vancouver—Nanaimo—Vancouver daily, each one-way trip taking two hours, 45 minutes (Ex. 1432(c)). They have other leave and other benefits, such as health plan and pension plan, to which their employer is contributing.

TREND IN THE COST OF THE VARIOUS SERVICES CONNECTED WITH SHIPPING

The pilots pointed out that, with regard to other costs in the shipping industry (Ex. 121), towboat charges were increased by some 15% in

March, 1956, bringing the charge for standard tugs to \$55 per hour, for powerful tugs to \$115 per hour and for line boats \$17 per hour.

On March 16, 1959, there was a 10% increase bringing the rates to \$60, \$125 and \$19 respectively, and standby charges to \$25 for tugs and \$10 for line boats. On February 3, 1965, the B.C. Towboat Owners' Association recommended a further increase to \$63 per hour for standard tugs and \$146 per hour for large tugs.

Stevedores' hourly rates increased from a basic rate of \$2.57 as of May 1, 1957, to \$2.94 as of May 1, 1961, i.e., an increase of about 15%. To that has to be added another 5 to 10 per cent for various restrictions. Take-home pay would be in the neighbourhood of \$3 an hour for an eight-hour day, time and a half for overtime after 5:00 p.m. up to midnight. There is no work after midnight under any circumstances. For stevedores, fringe benefits might approximate 20 to 25 cents an hour. Increases in the wages of longshoremen have been as follows:

(Ex. 121): "August 1st, 1963 15¢ per hour
 February 1st, 1964 10¢ per hour
 August 1st, 1964 8¢ per hour
 August 1st, 1965 11¢ per hour"

(3) PILOTAGE DUES¹⁶

PREAMBLE

Despite the fact that the tariff refers to pilotage services rendered to "vessels", it can not apply to vessels that are not ships. The statutory provisions of Part VI of the Canada Shipping Act apply only to ships and, therefore, the regulations (including pilotage rates) made thereunder can not have a wider scope of application than their governing statutory provisions (vide Report, Part I, C. 7, pp. 213 and ff.). Hence, a vessel or craft which is not a ship does not come under the application of pilotage legislation, a situation which is of particular significance in the British Columbia District.

To remedy the confusion that has resulted from the provisions of sec. 357 C.S.A. (vide Report, Part I, C. 7, pp. 217 and ff. and 220), the By-law Interpretation section contains legislative definitions of the terms "pilotage" and "movage", in order to differentiate for tariff purposes between piloting from one place to another and ships' movements within a harbour.

Tariff items may be grouped as follows:

- (a) pilotage voyage or trip;
- (b) other pilotage services;
- (c) indemnity charges;
- (d) surcharge;
- (e) accessory services.

¹⁶ Re the rates in effect from May 29, 1968, vide footnote¹⁵, p. 143.

The table hereunder shows the various items contained in each group, the yield of each in the years 1962 and 1967 and the relative importance of each shown as a percentage of the total earnings derived from the tariff. For complete financial statement for the years 1962 and 1967, vide *Appendix F*.

	1962		1967	
	\$	%	\$	% [†]
(A) VOYAGES.....	1,082,670.62	84.03	1,454,839.88	79.99
<i>Basic Rates</i>	965,003.75	74.90	1,269,995.34	69.83
Draft.....	195,755.55	15.20	208,094.50	11.44
Tonnage.....	368,483.06	28.60	458,130.84	25.19
Mileage.....	400,765.14	31.10	603,770.00	33.20
<i>Additional Charges</i>	117,666.87	9.13	184,844.54	10.16
Second pilot.....	39,628.10	3.08	72,624.05	3.99
Travel expenses.....	42,985.07	3.33	68,287.24	3.75
Dead ships ^a	—	—	—	—
Second Narrows.....	5,687.00	0.44	9,589.25	0.53
Quarantine.....	29,366.70	2.28	34,344.00	1.89
(B) OTHER SERVICES.....	65,989.10	5.12	91,165.20	5.01
Movages.....	61,772.85	4.79	88,842.00	4.89
Compass and D/F adjusting.....	1,524.00	0.12	435.60	0.02
Trial trips ^a	2,692.25	0.21	1,887.60	0.10
Gun trials.....	—	—	—	—
Pleasure yachts.....	—	—	—	—
(C) INDEMNITY CHARGES.....	139,839.83	10.85	216,878.50	11.92
Detention.....	117,577.23	9.12	168,825.50	9.28
Cancellation.....	1,180.20	0.09	1,560.90	0.09
Boarding off.....	762.30	0.06	2,432.10	0.13
Puget Sound.....	20,320.10	1.58	44,060.00	2.42
Other outside District charges ^b	—	—	—	—
Overcarriage (sec. 359 C.S.A.).....	—	—	—	—
Quarantine (sec. 360 C.S.A.).....	—	—	—	—
(D) SURCHARGE ^c	Nil	—	55,942.99	3.08
TOTAL DUES BELONGING TO PILOTS.....	1,288,499.55	100	1,818,826.57	100
<i>Accessory Services</i> ^d	66,422.50		90,717.75	
Pilot boat.....	36,660.00		48,490.00	
Launch hire.....	29,762.50		27,076.25	
Radiotelephone ^e	Nil		15,151.50	
GRAND TOTAL.....	1,354,922.05		1,909,544.32	

^a The items *Dead ships* and *Trial trips* are not segregated in the financial statement.

^b No record kept.

^c Surcharge of 6% "on all pilotage dues" imposed June 8, 1967 (P.C. 1967-1177).

^d Accessory service charges do not form part of the pool of the pilots' earnings.

^e The radiotelephone charge was introduced January 12, 1966 (P.C. 1966-79).

[†] These percentages should be greater because of the surcharge but, since separate figures were not kept, the exact distribution of the 3.08% yielded by the surcharge is not known.

(A) *Pilotage Voyage Charges*

The definition of a pilotage voyage for the purpose of pilotage dues is contained in Part I of the Report, C. 6, p. 135. Pilotage voyage charges account for the major part of pilotage revenue in the British Columbia District (79.99% in 1967, of which 69.83% was derived from the basic rates, vide table). The revenue obtained from the basic rates is divided almost equally between port charges and mileage charges.

Under the British Columbia District pilotage structure, there are three types of charges (not counting the general surcharge) that may apply to the computation of dues for pilotage performed during a voyage: basic rates, additional charges and specific rates for special cases.

(a) *Basic Rates*

As seen earlier, since 1958 the basic rates have had three components: draught and tonnage, which are charged each time a ship enters a port or proceeds out of a port, and mileage, which is computed on the distance piloted between a boarding station and a port or between ports. No minimum or maximum is set for the basic rate.

The *port charge* has not been altered since the present rate structure was adopted in 1958, i.e., $\frac{1}{2}\phi$ per ton and \$1 per foot draught. Boarding or disembarking points not located in a B.C. District harbour are not considered ports for the purpose of this charge with the notable exception of ships proceeding to or from the New Westminster District and changing pilots off Sand Heads at the entrance to the Fraser River. This exception, which dates back to 1958, has not been explained and appears to be illogical as well as discriminatory against the New Westminster District. There is no obvious reason for levying two port charges against a ship bound to a B.C. District port from sea or from an American port.

This port charge is made even though the port entered is not the port of destination but a Port of Entry where a ship must call for pratique etc., e.g., a foreign ship entering the District north of the Queen Charlotte Islands and bound for a northern port other than Prince Rupert is required to pay three port charges, i.e., on the inward trip, two in and out of Prince Rupert, which is the Port of Entry, and one for entering a port of destination. It is considered that this is undesirable discrimination in favour of certain ports which, on account of governmental administrative requirements, happen to have been designated Ports of Entry. This is a peculiarity of coastal Districts which should be taken into consideration when the tariff is devised. It is considered that no port charge should be made for entering or leaving any port which is not a port of destination. A pilotage trip should be considered as a whole and the port charge should apply only to the port where the trip originated and/or the port of destination, if in B.C. District waters.

Prior to 1965, no port charge was levied against a ship merely in transit but only the mileage charge, which is unaffected by a ship's characteristics. This situation was corrected in 1965 by making a port charge applicable to ships in transit in addition to the mileage charge. This arbitrary rule seems to be reasonably equitable short of establishing a mileage rate based on tonnage.

Nor was the reason explained to the Commission for the draught component in the port charge. It seems to be taken for granted that it ought to be one of the components. There appears to be no logical ground for such a charge in a District where water under-keel clearance is never a problem and, therefore, the deeper the draught the easier and safer the navigation of a ship. It is obviously a relic of the past, observing it was in use prior to the abolition of the District in 1920. (Reference is made to the Commission's comments on the value of draught as a factor in computing the dues in Part I of the Report, C.6, p. 164 and p. 177). It is the least important of the three components of the basic rate.

The inclusion of draught as a factor in the circumstances of navigation in British Columbia is an indication that the ensuing dues are a form of tax to support the District and not the pecuniary consideration of a pilotage contract, i.e., a fair price for services rendered. If the tax concept is accepted, both the value of a ship and her cargo should contribute and, hence, a loaded ship should pay more irrespective of the actual effect on pilotage. Although the tariff should be based on either of these methods but not on both at the same time, it is considered that in British Columbia draught is, in fact, a negligible factor. For a given ship the difference in pilotage dues when light and loaded is very small. The table on page 96 shows that for the Japanese ore carrier *Harriet Maru*, which sails between Japan and Harriet Harbour via Prince Rupert, the difference in the port charge on an inward voyage when the ship is light and on an outward voyage when loaded is \$6.75 per port charge, making an overall difference of \$20.25 between an inward trip and an outward trip.

The other component of the port charge is gross tonnage. The British Columbia District was the first Pilotage District to use gross tonnage in the computation of the dues. Formerly, net tonnage was the basis but the pilots complained that they were losing money because of some specially constructed ships which had very low tonnage in comparison with their size, and asserted that gross tonnage would be a more appropriate standard. The change was made in 1958. They have since recommended that it be changed to maximum gross tonnage to meet the problems created by open/closed shelter deck vessels. This question is studied in the Report, Part I, C. 6, pp. 165 and ff. As stated in Part I, C. 6, on page 181, it is

considered that maximum gross tonnage should always be used and pilotage legislation should foresee cases where certificates of registry do not show such a measurement.

Mileage is computed from the limit of pilotage waters to the port concerned and vice versa. If a vessel sails from one port to another in the District, there are two draught and tonnage charges, but total mileage is charged only once. If a ship goes outside pilotage waters on a continuous trip between B.C. ports or between a boarding station and a port, the mileage run outside pilotage waters is not charged (but since 1966, this time has been charged as detention, vide pp. 157 and ff.).

Mileage is a special feature of coastal pilotage because, contrary to harbour pilotage or river pilotage, distance is an essential factor which varies with assignments. In the B.C. District, mileage ranges from a few miles to 600 miles, and the pilots claim the District covers "eleven thousand miles of coastline". This explains why the variable distance component is the essential factor in the tariff structure (vide Part I, C. 6, pp. 159 and 160). It is of interest to note that the U.S. coastal Pilotage District of Puget Sound computes its dues on mileage alone.

When the new tariff structure was adopted in 1958, the phraseology previously used to cover the mileage factor was retained, i.e., "per mile of distance piloted". This wording created a problem when, to meet a ship's convenience, the pilot disembarked *en route* elsewhere than at a boarding station (vide p. 104) to spare the ship the necessity of proceeding to Cape Beale for the purpose. Furthermore, such wording was not consistent with the compulsory payment obligation, in that, if the regulation was taken literally, the mileage charge could not be applied when a ship proceeded without a pilot. This phrase was amended in 1961 to read "per mile of distance" and again in 1965 to read merely "per mile".

While neither component of the port charge has been altered since the rate structure was adopted in 1958, the mileage charge, as seen earlier, changed from 88¢ as it was originally, to 82¢ in 1960, to \$1 in 1965 and, finally, to \$1.10 May 26, 1966.

(b) *Additional Charges*

When certain conditions occur, the tariff provides for supplementary charges:

- (a) the two-pilot requirement;
- (b) the travelling expenses of the pilot(s) on northern assignments;
- (c) the navigation of dead ships;
- (d) navigation through the Second Narrows, Vancouver Harbour;
- (e) quarantine service.

The question of the *requirement for two pilots* was studied earlier on pages 113 and ff., to which reference is made. All the tariff says is that

where this occurs "the pilotage dues shall be $1\frac{1}{2}$ times the dues for 1 pilot". This was the wording originally adopted in 1958. However, in 1961 the words "for one pilot" were deleted and replaced by "prescribed in sec. 1 of the Schedule". In the 1965 By-law the old wording was reinstated. This expression renders the special charge incompatible with the provisions of Part VI C.S.A. which is to the effect that the dues belong to the pilot who performed the service (vide Part I, C. 5, pp. 107 and ff.). With the regulation drafted as it is but not stating which part of these $1\frac{1}{2}$ dues belong to the first pilot and which to the second pilot, neither can claim any part of the dues. Such wording is consistent only with fully controlled pilotage where the individual pilot's remuneration is not the dues earned by his services but a salary or a share of District earnings.

The tariff provides for a *pilot's travelling expenses* to be charged to a ship in addition to the other voyage charges when boarding and/or disembarking occurs in the Northern Region. Such a charge is doubled if the assignment happens to involve the assignment of two pilots jointly. The Northern Region includes the whole area outside the Strait of Juan de Fuca and the Gulf of Georgia from Race Rocks to latitude 50° North. Thus, it comprises the area north of latitude 50° and the waters south of latitude 50° on the west coast of Vancouver Island. This means that the pilot's travelling expenses have to be paid by a ship whenever he boards or disembarks off Cape Beale or at Port Alberni (Ex. 1493(h)). In view of the proximity of these two places to the Nanaimo pilot station, the charge for the pilot's expenses appears to be not only unwarranted but abusive.

As shown in the table on page 126⁹⁶, travelling expenses alone amount to an average surcharge of 35.6% for pilotage voyages fully performed outside the Southern Region. (Re the legality of this charge see Report, Part I, C. 6, pp. 152 and 186.)

Section 5 of the tariff provides that the pilotage dues for the navigation of a *dead ship* shall be $1\frac{1}{2}$ times the basic rates. The Interpretation section contains a legislative definition of the term "dead ship" as a vessel normally self-propelled which is being navigated without the use of its propelling power. This excludes, *inter alia*, all vessels that are not self-propelled such as barges and scows. It is considered that the rule is equitable on account of the added difficulty the navigation of such navigation units entails (vide Report, Part I, C. 6, pp. 154 and 155).

The tariff also provides for an additional charge when a ship has to be navigated through the *Second Narrows* in Vancouver Harbour. It is quite normal to provide special rates for navigation at a particular location within a District which presents more difficulties and dangers than are normally encountered elsewhere in the District, so long as the waters in question are not part of the route regularly followed by the great majority of vessels and the necessity arises only occasionally, as is the case here.

Because the additional charge is small, the flat rate method is indicated (vide Report, Part I, C. 6, pp. 155 and 156).

The term *quarantine service charge* does not refer here to the case where a pilot is detained on board because a ship is actually placed in quarantine by the medical authorities on the ground of public health: this situation is covered in sec. 360 C.S.A. which provides for a statutory indemnity to the pilot at the rate of \$15 per day. The reference here is to detention resulting from uncontrollable natural forces (acts of God) which, therefore, can not reasonably be a ground for an indemnity for a breach of contract but which may be covered by a clause in the contract. Sec. 360 becomes such a statutory clause which forms part of every pilotage contract and, since the provision is contained in the Act, any regulation made on the subject would be *ultra vires*.

The quarantine charge referred to in the By-law is not a detention charge because it does not cover time when the pilots are idle but time when they are on active duty rendering pilotage services. Quarantine time is the period when a ship must remain in the boarding area while medical inspection is carried out. Sec. 7 of the Schedule to the By-law describes the service as follows:

“...when a pilot is required to stand by on a vessel at a quarantine station and tend the vessel while quarantine officials are on board”.

When a ship arrives off Brothie Ledge from a foreign port, a port Medical Officer embarks with the pilot from the pilot vessel. At that time, the ship is under temporary quarantine until pratique is granted after the Medical Officer has verified the ship's medical certificate from her last port of call and satisfied himself that the state of health on board meets the regulations. When the inspection is terminated, the Medical Officer returns in a pilot vessel and the ship proceeds¹⁷. If the ship is healthy, the procedure takes perhaps fifteen minutes. During that time, the ship is not anchored but waits and manoeuvres as required in the boarding area. There is no doubt that it is dangerous for a ship to remain practically immobilized in a congested area relatively close to shore especially when fog or gales prevail. This service resembles the “stand by” service that used to be covered in the regulations when, either on account of a precarious mooring or threatening weather, a pilot was required to remain on board to be available to take charge in case of emergency. Sec. 7 of the tariff now provides a flat \$36 charge for such quarantine service. Therefore, the quarantine charge does not automatically apply whenever a ship goes through the quarantine procedure.

¹⁷ The procedure is not uniform for all Ports of Entry but varies with local circumstances. For instance, the Medical Officer may embark with the pilot and then carry out the medical inspection *en route*.

Up to March 5, 1959, the quarantine station for the Southern Region was located at William Head, some five miles from Brothie Ledge. The pilot boarded at Brothie Ledge and the vessel had to proceed to William Head for pratique. At that time, the By-law provided a flat charge for piloting a ship to and from the quarantine station, including entering and leaving the station. In addition, a detention quarantine charge was levied after twenty-four hours. This last charge appears to have been illegal because it conflicted with sec. 360 C.S.A.

The William Head quarantine station was discontinued on March 5, 1959 (P.C. 1959-263). In anticipation of this move, the quarantine charge was not included in the new tariff in 1958. Since the service was still being performed at that time, the Superintendent was instructed by a letter from the Ottawa Headquarters dated November 12, 1958, to apply a movage charge in such a case.

When the By-law was revised on June 17, 1960, the William Head station had been discontinued and the provision for the quarantine charge was deliberately omitted. Following the pilots' protestations, the Ottawa Headquarters wrote to the Regional Superintendent on December 5, 1960, as follows:

"In the matter of quarantine charges, we refer to our letter of November 12, 1958, wherein we concurred that quarantine services should be charged under section 5, subsection 4(c) of the By-laws, which were then in force, until such time as the station at Williams [sic.] Head was discontinued. The station was discontinued by Order-in-Council, P.C. 1959-263, dated March 5, 1959, and, therefore, in compliance, quarantine services should no longer have been charged.

Unless there are other considerations of which we are unaware, there would appear to be no practical or legal grounds for your present practice, which if continued could result in our receiving a demand to correct the billing or, in the case of charges already paid, a demand for a refund. If necessary the revision of the By-laws, now being prepared, should cover this item."

The pilots advanced two arguments in favour of a quarantine charge. First, they claimed that, unless such a charge continued to be made, their remuneration would decrease. Their second argument, however, was more serious: they claimed that they were, in fact, performing a pilotage service which was necessary for the safety of ships while pratique was being granted and that extra service should be specifically remunerated. Since the ships concerned travelled a very short distance, if any, during inspection, mileage could not be claimed and there was no other way of paying for the service.

The shipping interests agreed that service was being performed and that the charge was warranted. The Pilotage Authority then agreed to reinstate the quarantine charge and include it in the By-law at the next revision. This was done in 1965. In the meantime, despite the fact that the service was not provided for in the By-law, a charge was made using the movage tariff for the purpose.

COMMENTS

It is considered that the additional charges resulting from despatching a second pilot or from pilots' travelling expenses within the District are discriminatory and should be abolished. When pilotage is a public service, the District should be treated as a whole and no area or vessel should be discriminated against simply because of the internal arrangements adopted by the Pilotage Authority. (Reference is made to the Comments on pp. 97 and 98.)

It is considered the quarantine charge should be abolished. Sec. 49 of the Quarantine Regulations (Order in Council of December 8, 1954, P.C. 1954-1914 as amended, Ex. 91) stipulates that vessels affected shall not pay for quarantine inspection. It is considered this intention should not be defeated by obliging a vessel to pay a charge that it would not have had to pay if quarantine inspection had not been obligatory, especially when such an accessory charge is imposed for services whose provision has become a Government responsibility. Furthermore, quarantine inspection is an event over which the vessel concerned has no control and, therefore, should be considered one of the various hazards the pilotage service has to contend with like any other uncontrollable delay for which there should not be an extra pilotage charge.

On the other hand, the number of quarantine inspections off Brotchie Ledge seems abnormally high. It is considered that the arrangements there should be carefully studied.

Under the present regulations, a physical inspection (as opposed to radio pratique) by a Medical Officer at an "organized quarantine station" should be a very exceptional occurrence, but at Brotchie Ledge it has become the rule. For instance, in 1967, 954 such physical inspections in cases involving pilotage were carried out off Brotchie Ledge. When allowance is made for coast-wise vessels and the other exempt vessels, it would appear that most, if not all, of the non-exempt vessels which pass through Juan de Fuca Strait are subject to a physical examination and little or no use is made of radio pratique.

On the west coast of Canada the only "organized quarantine station" is Victoria; the three sub-stations are Esquimalt, Vancouver and New Westminster.

All the other ports on the British Columbia coast are considered "unorganized maritime quarantine stations". If one of these is a vessel's port of destination, the Quarantine Regulations state that it may obtain pratique from the local Customs officer who by sec. 55, and subsec. 2(n), is made "the quarantine officer thereof".

However, some such ports are not provided with a Customs officer, in which case the vessel shall proceed to the nearest port *en route* to its destination at which there is a Customs officer and there make application

for quarantine clearance and customs entry. This explains why vessels sailing between sea and Harriet Harbour, for instance, have to detour through Prince Rupert *en route*.

Vessels proceeding to an unorganized quarantine station but passing an organized quarantine station *en route* are not obliged to stop unless they come from an infected port. This rule, however, does not apply if non-exempt vessels enter Canadian waters through Juan de Fuca Strait, in which case they "shall obtain pratique at Victoria" (Q.R., sec. 26). This may be obtained by wireless between 9 a.m. and 5 p.m. except if "coming from an Asiatic port that is not in Japan".

Therefore, when a vessel enters Canadian waters by any other route than Juan de Fuca Strait, in all cases it may proceed direct to its port of destination, but if the southern route is used it must obtain pratique from Victoria, even if its port of destination is one of the sub-stations.

It is considered that as far as possible, if a physical quarantine examination is required, it should be effected when vessels arrive at their port of destination. The fact that one route or another has been used should have no effect on the procedure. It is also considered that to carry out physical pratique off Victoria *en route* to a B.C. port creates a danger to navigation because manoeuvring at low speed in a congested area relatively close to shore for a period of 20-30 minutes increases the risk of accidents. The danger is compounded when adverse weather conditions prevail. Such a procedure should not be resorted to except in very unusual circumstances.

(c) *Special Cases*

Only one special type of pilotage voyage is foreseen, i.e., those involving pleasure yachts. The tariff realistically provides that the rates are to be based on the time factor. (For comments vide Report, Part I, C. 6, p. 160.) For some years the rate was \$37.80 per day or portion thereof calculated from the time the pilot left his base until his return, in addition to all his travelling expenses. In 1966, the per diem charge was raised to \$75 (P.C. 1966-980 dated May 26, 1966).

This item of tariff is seldom applied. In some years, the pilots are not requested to render such service, e.g., 1962 and 1967 whose tariff items are analyzed in the table on page 147. However, in 1961, 1963 and 1965 there were eleven such charges, three exceeding \$1,000. In 1965, there were three charges: two one-day charges of \$75 each and one extensive trip costing \$1,096.20 which must have kept the pilot away from his base for 12 to 14 days.

Inclusion of such an item in the tariff by the British Columbia Pilotage Authority is realistic since it is always a possible occurrence in any District and more so in the British Columbia District because the special features of the coast and the sheltered waters of the inside passage are particular attractions for such traffic.

(B) *Other Services*

Besides pilotage voyages, the tariff provides rates for other navigational services that may be performed by the pilots:

- (a) movages;
- (b) compass adjustments and direction finder calibrations;
- (c) trial trips;
- (d) gun trials and other exercises under Royal Canadian Navy control.

In all these cases, distance is not a factor and *ad hoc* rates adapted to the nature of each have to be provided.

Movages require little comment. Up to 1965, they were covered by a list of *ad hoc* flat charges varying between a low of \$30.25 and a maximum of \$48.40. One special feature was that in Vancouver Harbour there was a higher charge for night movages. In 1965, a new rate structure that applied to all cases was adopted, i.e., a scale based on tonnage, with a minimum charge of \$34 for ships up to 7,000 tons plus an additional \$2 for each additional 2,000 tons or part thereof with no maximum. Movage dues account for a little less than 5% of the pilotage earnings in the District. All the additional charges that apply to pilotage voyages also apply to movages, including the double assignment of pilots if the Superintendent is of the opinion that the intended movement of a vessel so requires (subsec. 23(5)(b) of the By-law). The charge would then be one and a half times movage rates, which, under the present wording, applies to all types of pilotage dues. A Second Narrows charge is made if the Second Narrows is transited during a movage and one and a half times the dues are charged if a ship is moved as a dead ship. A pilot's travelling expenses apply anywhere in the District if he is ordered from his base solely for a movage but, if a pilot happens to be in the locality where a movage is to take place, there is no such charge. Here again, it is considered this charge is discriminatory as well as illogical because it leaves the amount of the charge to chance. This also is strictly an internal arrangement for the provision of pilotage services. No port should be placed at a disadvantage because it does not happen to be a District pilot station. These travelling expenses should be part of the operational expenses of the service even if it means a net loss for the District. This is an occurrence which should be considered together with all other pertinent factors when the scale of the basic rate is fixed.

Doubtless because the time element is always approximately the same for *adjusting a ship's compasses or calibrating a direction finder*, and also because the amount is not large enough to warrant a scale, flat rates are provided. For adjustment and calibration the rate is \$24.20 and for pilotage from Sand Heads to English Bay, where these operations are performed, \$30.25. These rates have not changed since the new tariff was set in 1958.

The rates for *trial trips and gun trials or other exercises under Royal Canadian Navy control* are realistically based on the time factor, e.g., a minimum charge for a trial trip is \$90.75 for the first 8 hours and \$6.05 for each additional hour, and for gun trials \$36.30 for the first 4 hours and \$6.05 for each additional hour.

These special services represent a very small percentage of the District earnings (vide table).

(c) *Indemnity Charges*

On account of the peculiarities of a coastal District and more especially of British Columbia where transportation is difficult in certain areas, indemnity charges are significant items of revenue especially when no opportunity to change them has been neglected, with the result they have reached the point of abuse. Their aggregate yield accounts for about 14% of the District pilotage earnings, the most important being detention which amounts to over 9%.

In addition to the two indemnity charges provided in the C.S.A. for overcarriage of pilots and quarantine detention (sec. 360), the British Columbia District By-law also contains the following provisions:

- (a) detention;
- (b) cancellation;
- (c) boarding off;
- (d) Puget Sound charge;
- (e) other outside-District charges.

The statutory indemnity charges are studied in the Report, Part I, C. 6, pp. 201-203. As therein pointed out, under the present legislation, it is *ultra vires* on the part of the Pilotage Authority to deal through regulations with the cases contemplated in secs. 359 and 360 C.S.A., either to alter the indemnity or to modify the personal right of the pilot to these indemnities. To provide for these situations would require an amendment to the Act (vide Part I, Recommendation 11, pp. 490 and 491 re overcarriage indemnity).

(a) *Detention Charges*

The basic consideration of a pilotage contract is the navigation of a ship between two points situated within a Pilotage District at a price fixed in the tariff. The time factor enters into such a contract only in those specific instances where, as shown earlier, it is justified by the type of service performed. Although time is not a stated consideration when a pilotage contract is concluded, there are two implied guarantees: the pilot will report for duty at the appointed time and place in a fit condition to perform his duty and will effect the transit without undue loss of time; the ship will not unduly delay the pilot in the performance of his services.

The actual duration of any trip may be affected by various factors; some of these are within the control of either or both parties to the contract, others are not. Any event beyond the contracting parties' control and not caused by the fault of either must be accepted as a normal hazard which can not give rise to any claim for indemnity against the ship or the pilot. If the delay is attributable to a third party, the only permissible claim is against that third party. If a pilot's absence takes longer than usual because of an agreement between the Master and the pilot, this is the result of an additional, specific contract in which the pecuniary consideration becomes a charge and not an indemnity, e.g., the special arrangements for boarding or disembarking outside the District in a Puget Sound, California, or Alaska port.

When the loss of time is due to the act or fault of one party against the will or consent of the other, it becomes a breach of contract which gives rise to a claim for damages. These damages may be liquidated through a clause contained in the contract but it is not the custom to provide such a clause to cover the contractual damages claimable against a pilot. However, such a clause is usually found in the tariff to cover some of the various types of breach of contract on the part of a ship, including detention provisions. In those cases not so covered, recourse is not lost but damages must be liquidated by a court unless the claim is accepted by the ship or a compromise is reached.

Although the foregoing is trite law, it was considered necessary to state these basic principles in order to facilitate consideration of the legality and merit of the various charges made in the B.C. District under the heading *Detention*.

The B.C. tariff as a whole (especially its detention provisions) is a fair example of what may happen when some functions a Pilotage Authority is required to discharge in the public interest are left to the fate of negotiations between the directly interested parties whose main motivation is the betterment of their personal situation. On one hand, the pilots quite naturally miss no opportunity to improve their working conditions or increase their income; on the other hand, the shipping representatives are guided by the interests of the majority of their firms and, therefore, yield to the pilots' pressure on items that have little overall importance for the group as a whole, even if some members suffer or the public in general is prejudiced thereby.

It is because there can be no indemnity when the loss of time is due to events over which a ship has no control that the detention clause in the tariff normally contains a proviso to the effect that delays caused by stress of weather or other causes beyond a ship's control do not count as detention time. The B.C. District By-law does not contain such a proviso.

On May 26, 1966 (P.C. 1966-980), the detention provision of the By-law was redrafted and changed substantially. Apart from the question of presentation and style, there were four basic changes:

- (i) the daily maximum was raised from \$36.30 to \$60;
- (ii) the day was changed to a consecutive twenty-four hour period;
- (iii) idle time on board was reinstated as a type of chargeable detention;
- (iv) a rate in the form of a scale based on time was introduced, i.e., \$7.50 for the first hour, \$10 for the second hour, and \$15 for each subsequent hour to a maximum of \$60 per twenty-four hours.

The change from the calendar day to a twenty-four hour period for calculating maximum delay has corrected a point of contention. Under the previous wording, for instance, a consecutive period of twelve hours could have meant two days' detention if the detention commenced at 6:00 p.m.

With the new wording of the two-pilot rate provision, the one-and-a-half times rate applies because a detention charge is a pilotage due.

There are five types of time that are treated as detention in the British Columbia regulations:

- (i) time awaiting departure;
- (ii) time awaiting ship's arrival at a Northern Region boarding station;
- (iii) time spent at outports at the Master's request after a ship's arrival;
- (iv) idle time on board while a ship is under way;
- (v) idle time spent for a ship's convenience south or north of the Canadian territorial sea.

Time Awaiting Departure

This detention is reckoned from "ordered time" to "sailing time" from a berth or an anchorage, providing the pilot reported for duty at the requested time and at the appointed place.

This is the type of detention that normally appears in the tariff. It is a penalty clause rather than an indemnity clause because the actual damages suffered by a pilot as a result of a few hours' delay would be minimal. In fact, it is used as a deterrent to prevent Masters, agents or supercargoes from wasting the pilots' time. This is shown by the fact that, as a rule, the first period of detention is free of charge and the amount of the charge is far below the average worth of a pilot's working time.

The regulations allow for this type of detention a deductible period of:

- (i) three hours for departure from a northern port north of latitude 52°
- (ii) one hour elsewhere.

The longer deductible period for northern ports is doubtless a concession to account for the larger margin of error that results from the longer

advance notice of requirement ships must give in northern ports in order to allow the despatcher sufficient time to send a pilot from a southern pilot station. Under these circumstances, forecasting the exact time of departure is a practical impossibility.

It is the duty of the pilots to be ready and available at normal notice anywhere in the District where their services may be requested. Vessels should not be required under pain of a pecuniary penalty to give firm notice of requirement so far in advance that the time of departure can not be forecast with any degree of certainty. It seems that three hours prior to departure should be a reasonable rule for a firm order for a pilot. Such advance notice should be sufficient for a port where a pilot station is situated. When longer advance notice is required on account of the distance from the nearest pilot station of the port where the service is requested, the time free of detention charge should be increased proportionately to compensate for the margin of error which increases with the length of advance notice. If a ship is placed at a disadvantage on account of the way the service is organized, the resultant inconvenience should be borne by the District and not by the ship.

Delay Awaiting Ship at Cape Beale or Triple Island

This is another charge that applies exclusively to the Northern Region. As a rule, this is a type of charge which should not be made. It is the duty of the pilots to be in a state of readiness at the boarding area in order to be available at the moment a ship enters the boarding area on her inward voyage. At sea, a long advance notice can be very unreliable. A minimum time of arrival can be easily established, i.e., if ideal conditions exist, but on account of factors over which the ship has no control, such as adverse weather, a ship may be considerably delayed for a period that can not be established in advance. This is a service hazard which the pilots must accept. A pilot must be at the boarding station at the appointed time and wait for his assigned ship to arrive; no charge should be made for waiting time. The E.T.A. has served its purpose in that it has helped the Pilotage Authority to arrange for a pilot or pilots to be available. It should be borne in mind that an E.T.A. is not a condition for obtaining a pilot. The first ship to arrive at the boarding station has the right to have whichever pilot happens to be available at the time, even though he was despatched to meet another ship which has not yet arrived. Since this is the state of pilotage legislation as it now exists, an E.T.A. can not serve as the basis for computing a detention charge, thereby punishing a ship that has co-operated within the limits of feasibility. Furthermore, the Pilotage Authority has no power to define what should be a reasonable E.T.A. in local circumstances (vide Part I, C. 7, pp. 230-232).

It is on account of the foregoing principle that there is no detention charge at the only southern boarding station, Brotchie Ledge, no matter how

late a ship may be. The fact that no place is provided at Triple Island and Cape Beale, either on adjacent land or afloat, for a pilot to wait for the arrival of a ship does not change the situation. If it is impossible or impractical to provide a waiting place for the pilots on land, there is always the possibility of providing a floating boarding station as it is done the world over where similar situations are met. When, for reasons of internal organization or of economy, it is decided not to provide either type of accommodation, any inconvenience the pilots may suffer should not affect ships either directly or indirectly.

Time Spent in an Outport at a Master's Request

This situation occurs only in the Northern Region for the simple reason that it is more economical to pay detention than to dismiss a pilot and pay his travelling expenses back to his base station, plus the travelling expenses of the pilot who is sent to conduct the ship on her outward voyage. In this case, there is no deductible period and detention time counts from the moment the ship is berthed.

If a pilot is dismissed when a ship arrives in port, there can be no question of a detention charge even if the despatcher orders the pilot to remain in order to pilot the same ship on her outward voyage.

Since this is considered another situation arising from the organizational structure of the District, ships should not be inconvenienced thereby. As said earlier (p. 154), it is felt that travelling expenses for pilots on assignments to the Northern Region should be abolished because they amount to a discriminatory charge. Except in the interest of safety, Masters should have no greater privileges of retaining a pilot in Northern Region ports than they enjoy elsewhere in the District. Upon arrival at an outport, a pilotage assignment should be terminated and the problem of supplying a pilot for the outward voyage should be for the despatcher to solve. If it is considered advisable to require a pilot to remain at the outport to take charge of an outward voyage, this service should be free of charge to the ship. If, on the other hand, it is deemed advisable to assign another pilot, the travelling expenses of both pilots should be paid by the District.

Idle Time when Travelling On Board but not Piloting

Despite the generality of the wording of the governing By-law provision (*Schedule*, subsec. 9(1)(c)), this also is a situation that is met only in the Northern Region unless the text of the provision is taken literally, thus imposing a preposterous interpretation.

The meaning of this provision was quite clear under the previous wording (sec. 6 of the *Schedule*, 1960 General By-law). A detention charge was applicable for the period a pilot was detained on board "when outside pilotage waters between ports in the District". This wording clearly referred to a special feature of a coastal District where, on a given pilotage voyage,

a ship has to go beyond District waters. For example, on the run between Kitimat and Cape Beale, the pilot ceases to pilot after leaving the territorial sea off McInnes Island and resumes piloting some seventeen hours later on re-entering the territorial sea off Cape Beale.

The 1965 General By-law did not contain this charge. It was reinstated in 1966 (P.C. 1966-980) in the following ambiguous terms (By-law, *Schedule*, subsec. 9(1)(c)):

“where a pilot is travelling on a vessel but not piloting the vessel”.

This wording has a much wider meaning than the 1960 provision. Because it contains no further qualification, it may mean, *inter alia*, any of the following additional situations:

- (i) On a two-pilot assignment, the full time of one pilot would count as detention because he is idle while the other is piloting, with the result that $1\frac{1}{2}$ pilotage dues should be paid for the two-pilot assignment and one detention charge for one pilot for the full duration of the trip.
- (ii) When, for any reason, a Master does not let a pilot take charge of navigation but merely asks advice or information when he sees fit, the pilot is not piloting and, furthermore, is not the pilot of the ship in accordance with the statutory definition (subsec. 2(64) (vide Part I, C. 2, p. 25)). Therefore, if the provision is taken literally, the pilot is entitled to a detention charge for the full duration of the trip in addition to the pilotage voyage dues that are owing nevertheless.
- (iii) When a pilot travels in a ship north or south of the Canadian territorial sea, either because he has embarked or will disembark at an American port, in addition to the special fee provided for Puget Sound boarding or the fee arrived at through agreement for California and Alaska boarding, there should be a detention charge for time spent on board (not travelling time by land or air transport) until the ship arrives in or off the Canadian territorial sea.
- (iv) When a pilot is overcarried through circumstances beyond the control of both the ship and the pilot; the By-law provision in such a case would conflict with the statutory provision of sec. 359, C.S.A.

In practice, the detention provision is implemented only “when a pilot is travelling on a vessel between ports in the district or between such places as Cape Beale boarding station and McInnes Island where active piloting commences on vessels proceeding to Kitimat and for time spent on a vessel between Race Rocks and Cape Beale. On the other hand no charge is made for

time spent on board vessels while on passages to or from Puget Sound and to or from California ports when the vessel is not in waters of the British Columbia Pilotage District.” (D.O.T. letter, April 30, 1968, Ex. 1493(1)).

This detention item does not include time on board when a ship is not moving, whether she is anchored, moored, or temporarily berthed, moving at slow speed on account of weather conditions, waiting for a change in the tide, or for any other reason beyond the control of both ship and pilot. Such instances are normal hazards of navigation which do not justify compensation of any kind.

For pilots to be idle *en route* when a ship is outside the District is a special and important feature of coastal pilotage which should be covered in legislation. At present, the tariff can not cover such situations because each Pilotage Authority’s regulation-making powers (including fixing the rates) are restricted to its territorial jurisdiction. Therefore, such a detention charge is illegal at present.

This situation may occur in one of two ways:

- (i) outside District waters during a trip between two ports in the District, or between a boarding station and a port in a District;
- (ii) beyond a boarding station, i.e., in the B.C. District when a pilot is on board south or north of the Canadian territorial sea after embarking or about to disembark in an American port (vide pp. 100 and ff.).

The latter case is covered in General Recommendation 11 (vide Part I, C. 11, pp. 489-491).

At present, this service is not considered a pilotage service because it is performed outside District limits and, therefore, the tariff for it is not fixed by the Pilotage Authority but is negotiated by the pilots and the shipping interests—after which, the Authority merely approves what they have agreed upon. The Authority has taken a mixed attitude toward the resultant indemnities. On one hand, the Puget Sound charges are treated as if they were pilotage dues, are listed in the tariff and, when collected, become part of the common pool administered by the Pilotage Authority. On the other hand, charges for similar services in Alaska or California ports are segregated and paid directly to the pilot concerned.

In the former case, the choice of routes is the Master’s prerogative when alternative routes are possible. The pilot may, and should, inform the Master of the advantages and inconveniences of the various alternatives but he must not impose his point of view unless he considers this is warranted by consideration of the ship’s safety or he is aware of legislation prohibiting one possible course. For instance, for a voyage to or from the Northern Region, the Master may have a choice between the inside passage—all of which lies inside the District—or the outside passage, most of which is

situated outside the District. At other times, the only practical route necessarily runs partly through international waters, e.g., Prince Rupert—Harriet Harbour or Kitimat—Cape Beale. In either case, idle time on board while *en route* is part of the pilotage trip and, hence, should be taken into consideration when the rate structure is devised. As stated earlier, this can not be done at present but should be covered in future legislation.

However, for reasons stated earlier (p. 157), it is considered that the time factor is the wrong criterion. Instead, the distance factor should be adopted and the same method should be used as when the basic dues are computed, i.e., a fixed rate per mile, e.g., ten cents or other appropriate amount per mile outside District waters, or ten such miles or other appropriate number to equal one pilotage mile, for tariff purposes.

(b) *Cancellation*

The cancellation provision of the tariff is another indemnity clause. It is realistic because it recognizes the service nature of pilotage and authorizes a Master to cancel a pilotage contract unilaterally. Indirectly, it provides that no indemnity is called for if cancellation is ordered before the pilot has commenced to act on the request and, even so, the indemnity is not payable if the cancellation is due to unforeseen stress of weather. In other circumstances, cancellation becomes a breach of contract and the ship is required to pay the prescribed indemnity which, in B.C., is now \$18.15, plus the pilot's travelling expenses if the boarding point is a port other than his base station.

The only comment here is that travelling expenses should not be charged. The charge should be uniform throughout the District; the aggregate travelling expenses should be a factor to be considered when the rate is fixed.

(D) *Surcharge*¹⁸

A surcharge and its counterpart, a general percentage reduction, are ways of making general adjustments to the tariff without altering the basic tariff structure or any of its individual components. It is, *inter alia*, the indicated method of adjustment when the aggregate revenues fall short of, or exceed, the prescribed target income (vide Part I, C. 6, pp. 143 and ff.). In the British Columbia District, this method is currently employed. A first surcharge of six per cent was granted as of June 8, 1967 (General By-law, *Schedule*, sec. 15) to meet the pilots' demand for a higher annual income (vide pp. 136-138 and 142).

(E) *Accessory Services*

In British Columbia, these comprise the pilot vessel service (pp. 106-109) and the provision of radiotelephone equipment (p. 131).

¹⁸ Vide footnote ¹⁵, p. 143.

The charges for accessory services are essentially part of pilotage dues. They are segregated when the pilots do not personally provide those services (if they had, their cost would have been part of their operating expenses) or when such accessory services are not regular components of a pilotage voyage. (For comments on the nature and legality of such charges, vide Part I, C. 6, pp. 182-184.)

(4) COMPLAINTS ABOUT TARIFF

When the Commission sat in British Columbia in March, 1963, the pilots and the Vancouver Chamber of Shipping were in the midst of negotiations over tariff charges. They took advantage of the Commission's hearing to voice their arguments and air their grievances. Some of the complaints made at that time have since been corrected.

(a) *Pilots' Complaints*

The pilots complained that the tariff rates had not kept pace with charges in maritime traffic. Ships are now larger and carry two or three times as much cargo as Liberty ships but they claimed that basic pilotage rates had not been changed since 1945.

Pilotage dues in the Southern Region were formerly based on net tonnage and draught but not on mileage while, in the Northern Region, they were based on all three. The pilots complained that the Department of Transport had changed the tariff structure to gross tonnage, draught and mileage in order to prevent them from deriving increased remuneration from the changing pattern of traffic.

This complaint on the part of the pilots underlines their basic misconception of the nature of the tariff in a fully controlled pilotage service. Their argument is not sound. A tariff which varies according to ships' characteristics is not intended to provide the pilots with greater remuneration as the shipping pattern changes but merely to spread the total cost of the service as equitably as possible among the users. The amount of the charge for any given service should not be a concern of the pilots either as individuals or as a group now that free enterprise has disappeared and the District earnings are pooled. Their interest in that field should be limited to fixing an adequate target income and the Authority should be left with the responsibility of devising a tariff whose yield will produce the necessary aggregate revenue to meet the total cost of the service, including the pilots' remuneration. If, at the expiration of a prescribed trial period, the actual income of the pilots either fails to attain, or exceeds, the agreed target income by a substantial margin, the Pilotage Authority—after studying all the factors involved and eliminating those of a non-recurring nature—should correct the situation by an appropriate general increase or decrease. (Vide Part I, C. 6, and General Recommendations 20, 21 and 24.)

In fully controlled pilotage, the obvious and ideal status of a pilot is Crown employee (vide Part I, pp. 140 and 141).

The pilots also complained about the flat invariable rate for movages which was retained although ships had increased in size and movages had become more difficult. They recommended a movage surcharge for certain ships. As seen earlier, this was corrected in 1965 when a rate of scale based on tonnage was adopted.

As for the two-pilot requirement, they protested against the insinuation that their insistence on that point was merely a way of increasing their revenue. They argued that this could not be so because the second pilot could usually be more profitably employed elsewhere; they insisted that they continued to make the recommendation simply as a safety measure to ensure that there is always a rested pilot available during a long assignment. As seen earlier, this argument may be accepted for extended assignments but not for marginal cases such as the Kitimat-Cape Beale run where their prime concern was to improve their working conditions. However, they were not indifferent to the financial aspect because they asked payment of full dues for each pilot, claiming they are losing money under the present tariff. They pointed out that additional revenue would make it possible to increase the number of pilots on strength. (Vide the comments already made on this subject, pp. 118-121.)

(b) Vancouver Chamber of Shipping Complaints

The Vancouver Chamber of Shipping was satisfied that the tariff structure in 1963 bore a valid relation to the value of the services provided by the pilots and compared favourably with rates in other Districts. It believed, however, that some changes should be made, particularly to reduce the discriminatory charges which endangered the future of the communities and industries in the Northern Region.

The Chamber did not complain about the basic method of assessing pilotage dues by tonnage, draught, and mileage, but about the organization of the service—mainly the location of the pilot station—which results in considerable charges for travelling and detention and, in some cases, necessitates the assignment of two pilots, thus almost doubling the total bill.

The Chamber pointed out that the pilotage service at the scattered ports along the vast British Columbia coastline can not be self-supporting and recommended, therefore, that the less fortunate areas be subsidized by the more remunerative areas as is commonly done in industry. However, the Chamber expressed the opinion that the pilots would never agree as long as the net earnings of their District determined the amount of their income.

Detention charges also concerned the Chamber. In the Southern Region, ship operators are allowed a leeway of one hour and, in the Northern Region,

three hours; but the Chamber pointed out that it is extremely difficult to forecast the exact time a vessel will arrive from sea or longshoremen will complete loading. They stated that the pilots had been helpful in their attempts to reach a compromise but detention remained a serious problem in the Northern Region. As seen earlier, detention charges have been substantially increased since 1963.

The Chamber stated that it did not wish to acquire the reputation of being against the pilots but, at the same time, it emphasized its responsibility to exercise control over operating costs, most of which are for labour and personnel services. If increases are granted to one group, there will be similar demands by other groups. All costs are eventually reflected in freight rates which, in turn, affect Canadian exporters. A difference of as little as fifty cents a ton may enable a Canadian company to sell abroad. For example, the Aluminum Company of Canada can not compete with the United States Aluminum Company if the differential is too high. Such economic considerations force the shipping interests to control costs of all kind and they urge that reasonable remuneration for pilots be established either

- (i) by setting a minimum or maximum income, or
- (ii) by making the pilots civil servants,

and eliminating the fixed relationship between tariff and pilots' remuneration which is a continuing source of friction. (For the economic impact of pilotage rates, reference is made to Part I, C. 5, pp. 129 and ff., and *Appendix X* to Part I.)

The Vancouver Chamber of Shipping also complained about the increase in pilot boat charges. They pointed out that a few years ago there was no charge, but now the pilot boats from Victoria and Sand Heads pilot stations cost ten dollars. In addition, the cost of privately-owned pilot boats had increased greatly.

It is considered that the ten dollar pilot boat charge is far from excessive. Re the charges for hiring private launches, it should not be forgotten that the British Columbia District is the only District where shipping receives direct subsidies from the Crown which bear half the cost of hiring such launches. (On this subject and other types of subsidies, vide General Recommendations 20 and 21 contained in Part I of the Report.)

(c) *Complaints by the Aluminum Company of Canada Limited*

Saguenay Shipping Limited, the shipping subsidiary of the Aluminum Company of Canada, is a member of the Vancouver Chamber of Shipping but its representative stated that its views about operations at Kitimat do not always coincide with those of the Chamber

When Kitimat was first opened, maritime traffic was generally confined to the Company's ships bringing in material for construction and alumina.

At that time, no one except the Company was particularly interested in pilotage costs to and from Kitimat. Cargoes into Kitimat are still carried by ships controlled by Saguenay Shipping except for one firm that brings in pitch in bulk.

When the finished product was ready to ship, several lines operating in areas where aluminum is sold were given the opportunity to participate and, consequently, the ships of these lines now call at Kitimat. Their operators are conscious of pilotage costs and take a particular interest in them because their cargoes from Kitimat consist of parcels of aluminum only. It is unusual to ship a full cargo of aluminum, since aluminum is normally purchased in partial cargoes from 500 to 1000 tons.

For example, in 1962, there were forty-six shipments of aluminum from Kitimat in deep-sea vessels; of these, nineteen were under 1000 tons, ten between 1000 and 1500 tons, five between 1500 and 2000 tons, one between 2000 and 3000 tons, and eleven over 3000 tons. The largest cargo, 8988.7 tons, was carried by S.S. *Megara*. In addition, some 11,000 tons were carried by coastal vessels and an unstated amount went by rail (Ex. 138). Between July, 1957, and May, 1962, there were fifteen large cargoes out of Kitimat. These ranged from 7,146 tons to 12,262 tons, but only three were full cargoes.

The primary rôle of the ships operated by Saguenay Shipping is to bring in alumina. They bring a full cargo inbound and, if any aluminum is available for outward shipping, they take it; if possible, they complete their cargo with other shipments which they load at ports *en route* to their destination.

In 1962, seventy-one deep-sea vessels called at Kitimat (Ex. 133). Of the 142 pilotage assignments, there were only eight inward and seven outward *via* Triple Island.

In 1962, with the exception of the alumina ships and four others, all other deep-sea ships arriving at Kitimat carried no cargo on their inward voyage. Only four Saguenay Shipping Limited ships loaded aluminum at Kitimat while all other aluminum shipments were made in ships belonging to various lines. In December, 1962, M.S. *Sunek* brought 17,692.6 tons of alumina to Kitimat and sailed empty. In January, 1963, M.S. *Carina* entered with 13,530.6 tons of alumina and sailed with 5,202.7 tons of aluminum ingot.

Aluminum is sold in the export market at prices ranging within a fraction of a cent per pound and management must be very careful about costs. The world price of aluminum in 1963 was 22½ cents U.S. and 24 cents Canadian per pound. (In April, 1968, the price of unalloyed aluminum ingots was 25 cents Canadian delivered.) Canadian exporters are selling their product to countries where labour costs are vastly different and competition is

keen. Pilotage costs averaging \$1,100 per round trip add to the cost per ton of aluminum and are, therefore, of great concern to the Company. It was claimed that increased aluminum sales in 1962 were partially due to the devaluation of the Canadian dollar.

All expenses which a ship incurs in a port determine whether a call at that port is desirable or not. An operator will consider carefully which ports are offering cargo and what their operating costs are. Saguenay Shipping, for instance, does not use certain ports because of their high charges. The choice lies between lowering port charges or increasing freight rates.

Port charges are not the handling charges which are absorbed by the shipper or recipient of the cargo, nor wharfage, nor the three-cent cargo rate formerly charged in Vancouver, but those incurred by the ship as opposed to cargo expenses, charges which the shipowner is expected to pay, i.e., pilotage, tugs, side wharfage, customs, immigration, and similar charges which a ship pays whether or not she discharges or loads cargo.

From 1958 to 1962, agents' fees and charges for stevedores and line-men did not change at Kitimat. All these services are provided by the Aluminum Company of Canada Limited.

In 1963, the average operating expenses of Saguenay Shipping Ltd. ships serving Kitimat varied between \$50 per hour and \$100 per hour depending on the ship.

When computing the incidence of pilotage costs on the finished product, it was pointed out that freight and pilotage enter into the cost of both bringing in raw material and shipping out the finished product, but the cost of pilotage only for shipping out aluminum by water amounted to between sixty-eight cents and seventy cents per ton in 1963.

The Aluminum Company of Canada Limited and Saguenay Shipping Limited do not complain about the pilotage service. On the contrary, they consider that the British Columbia pilots are well qualified professionally and the Saguenay Shipping Masters speak very highly of them. The problem is economic. The cost of transportation by water is particularly significant because of the location of Kitimat and the nature of their export product.

Before the smelter was built at Kitimat, the Aluminum Company of Canada Limited was aware of pilotage costs and of the requirement to carry two pilots but it was unexpected that these costs would increase as they did on account of the various By-law amendments affecting the basic rates, changing the time from twelve hours to eight hours when determining whether two pilots should be assigned, and the specification of the calendar day for computing detention. As seen earlier, this last point has now been corrected.

They are very much concerned about the safety of their ships but they consider that, on trips to and from Kitimat, one pilot instead of two would be a reasonable calculated risk.

They pointed out that the requirement to carry two pilots added about one-third to their pilotage costs. The table on p. 96 indicates that, in 1965, the average additional cost for northern voyages resulting from additional charges for travelling expenses and detention—not counting the second pilot requirement—amounted to approximately fifty per cent.

The Company's principal complaint concerns the second pilot for whom they now pay half pilotage dues plus full detention and travelling expenses. They point out that, if they were also required to pay full dues for the second pilot as the pilots are requesting, the additional cost would be very harmful to their industry. The main object of their brief is to reduce their costs by arranging to use only one pilot between McInnes Island and Kitimat.

There are three possible routes to Kitimat but, unless a vessel is calling at a port on the Strait of Georgia, the shortest and most economical route is west of Vancouver Island *via* the unofficial boarding station off Cape Beale. To proceed *via* Triple Island would mean an expensive detour for ships coming from the south and, even if pilots were stationed at Prince Rupert, the savings in detention and travelling expenses would be more than offset by the cost of extra mileage and extra time. They estimated that ninety per cent of the seventy to eighty deep-sea vessels that were expected to call at Kitimat during the year 1963 would use the Cape Beale route.

(5) EXAMPLES OF PILOTAGE CHARGES

In order to show that their pilotage charges compared advantageously with the charges made in Puget Sound and on the Columbia River, as well as in a number of Pilotage Districts in Canada, the pilots prepared a comparative table which was filed as Exhibit 82. As in the case of all statistics, these should not be taken at face value but should be carefully analysed. For instance, their selection of pilotage dues for a B.C. trip is not necessarily characteristic of B.C. pilotage charges because they took a trip where the aggregate amount was at its minimum, i.e., there were no additional charges and only one port charge. No comparison is possible between pilotage charges in Puget Sound and the B.C. District because the components of the rates are dissimilar. For instance, an eighty-mile trip involving two B.C. ports costs approximately fifty per cent more than the trip quoted as an example. If the trip happens to be in the Northern Region, another fifty per cent has to be added, and even more if the trip entails a call at Prince Rupert for pratique or clearance because, on such a trip, three port charges are made instead of the one in the example.

Here are typical examples of the aggregate pilotage charges incurred by a ship during her full stay in the District, i.e., from the time she enters from sea to the time she returns to sea. These are actual charges incurred in 1963. As seen earlier, the tariff has increased substantially since then.

(a) *S.S. Harpalycus*

The pilotage charges for *S.S. Harpalycus* in January and February, 1963, were filed (Ex. 111 and Ex. 1432(d)) as a typical example of a lumber charter (except for the D/F calibration) which loads from six to eight berths in different ports of B.C. The charges are as follows:

Jan. 22	From sea through Brothie Ledge to Vancouver.....	\$ 139.91
Jan. 24	One movage (D/F calibration).....	54.45
Jan. 26	Vancouver to Victoria.....	192.87
Jan. 30	Victoria to Sand Heads.....	175.65
Jan. 30	Inward pilotage, New Westminster.....	123.05
Feb. 2	Outward pilotage, New Westminster.....	130.85
Feb. 2	Sand Heads to Nanaimo anchorage.....	151.13
Feb. 4	Nanaimo anchorage to Nanaimo.....	54.45
Feb. 6	Nanaimo to Vancouver.....	165.15
Feb. 12	Vancouver to Sand Heads.....	158.03
Feb. 12	Inward pilotage, New Westminster.....	145.15
Feb. 13	Outward voyage from New Westminster.....	146.45
Feb. 13	Sand Heads to Victoria.....	210.80
Feb. 18	Victoria to sea.....	85.45
		<hr/>
		\$1,933.39

In loading a ship, the cargo that is to be discharged last has to be loaded first. There are many trips of this kind (between ten and twelve per month) carried out by the three companies doing this type of chartering.

(b) *Other Lumber Charters*

The Regional Superintendent reported on March 12, 1965, that it is difficult to select a typical lumber charter because the number of loading ports varies from one to five or six. Large bulk carriers load full cargoes in Vancouver Harbour and it is assumed that the lumber arrives by scow from local mills with no deep-sea dock facilities, e.g., *M.V. Pharos* loaded a record 11.2 million feet at Western Waterways, Vancouver. The Regional Superintendent furnished four examples of such lumber charters (Ex. 1432(d)):

- (i) between February 4 and March 1, 1965, *S.S. Maritahi* called at six berths in Alberni, Crofton, Victoria, Chemainus, and back to Alberni, at a total pilotage cost of \$1,308.57;
- (ii) from January 28 to February 22, 1965, *S.S. Alfa* berthed four times in three ports, Crofton, Chemainus and Alberni, at a total pilotage cost of \$962.48;
- (iii) between January 16 and February 10, 1965, *S.S. Erna Stathotos* [changed to *S.S. Albadoro* in 1965] visited five ports and incurred pilotage charges of \$1,293.98;

- (iv) from November 2 to December 14, 1964, S.S. *Polegate* loaded at five berths in four ports, with pilotage charges of \$1,303.32.

There were also four cases where there was only one berthing with charges varying between \$339.67 and \$403.62 (Ex. 1432(d)).

(c) *Large Grain Ship*

On November 30, 1962, a large grain ship arrived at the National Harbours Board elevators in Vancouver and sailed December 11—her gross tonnage was 28,390, net tonnage 17,809. Her draught on arrival was 27½ feet and, on her departure, was 36½ feet. She reached Vancouver at 6:30 p.m., anchored and did not berth until 8:00 the next morning. The pilot stayed on board at the Master's request, thus causing a detention charge of \$72.60. Pilotage charges on the inward trip were \$347.90 including the moorage and detention. On the departure day, the pilot was ordered for 3:00 p.m. but the ship did not sail until 5:00 p.m., thus causing a detention charge of \$24.20 since the pilot remained on board at the Master's request. The total bill for the outward trip was \$278.25; the total pilotage bill was \$626.15.

7. FINANCIAL ADMINISTRATION

As described in Part I of the Report, C. 5, all pilotage revenues and other money received by the Pilotage Authority are treated as if they were not public monies and the District was not a Crown organization. The small number of financial requirements listed in the Canada Shipping Act (mainly sec. 328) are disregarded.

The financial administration of the District and of the service, including handling these monies, is the sole responsibility of the Regional Superintendent. His principal guidance in the discharge of these duties comes from the various financial provisions contained in the District General By-law, most of which are ultra vires as will be shown during detailed study of the District financial procedure.

He makes out invoices for pilotage dues and collects dues or any other sums owed to the Pilotage Authority or which the Pilotage Authority is required, or has undertaken, to collect. As a service to the pilots and the private operators of pilot vessels, he also includes anything owed by ships to them personally when he makes out the bills for pilotage dues. As a further service to the pilots, he undertakes payment of their group expenses, assists them to compile claims and reports regarding their group insurance, and collects their indemnities and benefits. For income tax, the Canada Pension Plan, saving bonds, subscriptions, donations, etc., he makes the necessary deductions at source, none of which appear in the annual financial report.

The Regional Superintendent stated that he had never had any difficulty collecting pilotage dues. As of March 1963, there were only two debts outstanding. In one case, the debtor was a firm in liquidation from which a partial payment was expected. The other outstanding bill was being processed by the appropriate naval authorities and he expected the amount to be paid. He occasionally is forced to have recourse to the power conferred upon the Pilotage Authority by sec. 344 C.S.A., i.e., to have a ship detained by requiring a Customs officer to withhold clearance until the pilotage dues are paid (vide Part I, C. 6, pp. 196 and ff.).

As of 1963, there were three types of funds being kept by the Regional Superintendent:

- (a) British Columbia Pilotage Fund;
- (b) the Pilot Fund;
- (c) the Pilots' Reserve Fund.

While the pilots' earnings are pooled in the British Columbia District and the individual pilot's remuneration is a share of the resulting common fund, this fund is not kept segregated. In fact, the pilots' pool or common fund is merely the net revenues of the British Columbia Pilotage Fund.

The Pilot Fund was the British Columbia pilots' pension fund created pursuant to the provisions of subsec. 319(1), 1934 C.S.A. It has since ceased to be a responsibility of the Pilotage Authority. This will be studied in the next chapter.

The Reserve Fund, which is unique to the B.C. District, is a device to facilitate sharing the pilotage earnings among the pilots. It is not kept segregated from the Pilotage Fund, except as a bookkeeping entry showing money on loan from the pilots. It will be studied at the end of this chapter.

(1) BRITISH COLUMBIA PILOTAGE FUND

The British Columbia Pilotage Fund is, in effect, the bank account into which all receipts that come into the hands of the Regional Superintendent are deposited, whatever their origin, nature or purpose. Sec. 9 of the General By-law requires the Regional Superintendent to deposit to the credit of the Authority in a chartered bank designated by the Authority in an account to be known as the British Columbia Pilotage Fund all monies received by or on behalf of the Authority. All expenditures are by cheque signed by the Superintendent on behalf of the Authority. While the By-law does not contain a specific delegation of power authorizing the Superintendent to effect the necessary withdrawals, such power is implied in the provisions of sec. 10 of the By-law which require the Superintendent to liquidate the fund each month by making payments as directed by that section.

The Regional Superintendent considers that secs. 9 to 12 inclusive of the By-law define his authority to dispose of all money in the Pilotage

Fund. However, at times, he acts on his own initiative and, occasionally, he applies the letter of the By-law. This is a sensitive area for him because whatever he spends means less remaining for actual distribution to the pilots. In addition, he may become personally liable.

Appendix F is a comparative table for the years 1962 and 1967 rearranged to follow the analysis hereunder of that part of the Pilotage Fund consisting of pilotage earnings and other items entering into the pilots' pool without, however, any mention being made of such items of the Pilotage Fund as the Reserve Fund, the money collected which belongs personally to individual pilots, and direct Crown subsidies for launch hire (D.O.T. letter May 9, 1968, Ex. 1493(m)).

The financial statement does not carry the item "accounts receivable" nor its converse "accounts payable" because the simplest possible form of bookkeeping is employed, i.e., the receipts and expenditures system. In fact, there are receivable accounts at all times, i.e., bills for pilotage dues that have been sent out but not yet paid. As seen later, for the purpose of this statement these accounts are considered collected as soon as they are earned.

Because the aggregate pilots' remuneration is the net pilotage earnings of the District and because the pilots' share must be paid out every month, all unpaid bills or liabilities have to be paid before the net pilotage earnings can be arrived at, and, therefore, there can not be any outstanding payable accounts.

(A) Assets and Items of Revenue

Under the present legislation, a Pilotage Authority is not supposed to own any assets except those necessary for the discharge of its limited functions, i.e., an office, either owned or rented, to accommodate its clerical staff, and equipment. It has no power to accumulate any reserve fund and most money received is collected for others and, therefore, can not be retained for an undue length of time (vide Part I, C. 6, and C. 8, pp. 318 and ff.).

The British Columbia Pilotage Authority has no assets of its own. The premises it occupies are rented and the rent paid by the Department of Transport, all its office equipment is furnished free of charge by the Government and all its operating expenses are also met by the Government.

All these expenses paid by the Crown and these services received free of charge from the Crown are, in effect, subsidies (vide Part I, C. 5, pp. 116 and ff.). Because the amount of these subsidies is not reflected in the District's own financial operations, the annual financial report gives a distorted picture of the real cost of the pilotage service in the District. For instance, for the year 1962, Government financial assistance to the District of British Columbia amounted to \$191,640; in 1965, it had increased to \$237,000.

For a complete summary of the total cost of pilotage reference is made to Part I, *Appendix IX*, Schedule 1, pp. 654-656 for the years 1961 to 1965.

The part of the Pilotage Fund which is covered in the annual financial statement of the British Columbia District is composed of the following receipts:

- (a) Pilotage dues, i.e., all items listed and defined in the tariff which were studied earlier (pp. 146 and ff.) including dues paid on account of the compulsory payment system, charges for accessory services, indemnity charges payable for embarking and disembarking outside District limits and the surcharge. These items account for the quasi-totality of District earnings. In 1962 and 1967 they amounted to 99.98% and 99.65% respectively of the total receipts for those years (not counting the direct and indirect subsidies received which, from 1961 to 1965, accounted for 12-13% of the total cost of the District) (vide Part I, *Appendix IX*, pp. 654-656).
- (b) Miscellaneous revenues which comprise the remaining receipts. In British Columbia, these are:
 - (i) overcarriage and quarantine indemnities (sec. 359 and sec. 360 C.S.A.);

Pursuant to sec. 12 of the British Columbia By-law, these are to be collected by the Regional Superintendent and form part of the pilots' pool. (Re legality, vide p. 157.)

It would appear that this is a very rare occurrence.

- (ii) examination fees and licence fees;

Subsec. 17(2) of the By-law fixes an examination fee of \$25 payable by each candidate attending an examination for pilots. As stated in Part I of the Report, it is considered this By-law provision is illegal and unwarranted (vide Part I, C. 5, p. 106 and C. 8, pp. 259 and 260). Subsec. 18(4) fixes a fee of \$15 for a permanent licence but there is no charge for a probationary licence. Because an examination for pilots is held only when the list of accepted candidates is exhausted (vide p. 68), this item of revenue does not appear every year. For instance, an examination was held in 1961 which yielded a revenue of \$110, the examination fee at the time being \$5. On the other hand, in any given year, a few permanent licences are always issued either because replacements are required or the complement was increased the year before. In 1962 and 1967, this item amounted to \$60 and \$30 respectively.

- (iii) fines imposed on pilots after conviction for an offence created by the Act or by regulation made under the Act;

This again is a very rare occurrence: there was none in 1962 and only one in 1967, in the amount of forty-five dollars.

- (iv) pilotage dues belonging to other Pilotage Authorities;

In such cases, the Regional Superintendent acts as collecting agent, presumably for the application of subsec. 344(2) C.S.A. when a ship owing pilotage dues appears in a B.C. port. This again is a very infrequent occurrence, e.g., there was no such collection in 1962; in 1967 it amounted to \$54 collected for the Pilotage District of Kingston. The 1963 financial statement indicates receipts of this kind in the amount of \$1,251.44.

- (v) non-pilotage dues, i.e., receipts for the Crown in connection with the organization of pilotage;

These may include various types of receipts connected with the various kinds of assistance provided by the Crown to the pilotage organization, e.g., the 1967 financial return shows a receipt of \$35 for damage to furniture and \$214.42 received in cash as the first payment on the purchase by instalments of Canada Savings Bonds from a pilot who had been late completing his application to purchase (Ex. 1493(a)).

- (vi) monies collected for the pilots as a personal service to them, without any legislative obligation;

Because these receipts are received by the Superintendent, they are deposited in the Pilotage Fund. In 1962, there was no item of revenue under that heading. In 1967, however, insurance claims by pilots pursuant to their group insurance concerning loss of earnings during incapacitation brought in \$5,716.28.

- (vii) other miscellaneous revenues such as exchange profits on foreign currency, bank interest, etc.;

These items are so minimal that they can not be considered a source of income but are listed simply to comply with bookkeeping requirements.

- (viii) items which are not true receipts but are entered as such for bookkeeping purposes only;

Such are the 1962 item—audit adjustment \$69.91—and the 1967 item—refund advance from the Pilots'

Committee \$512.75. In this last case, the Pilots' Committee returned to the pool the unexpended part of the advance they had drawn for their travelling expenses (Ex. 1493(a)).

(B) *Liabilities and Items of Expenditure*

Items of expenditure may be grouped as follows:

- (a) monies collected for third parties;
- (b) District and service operating expenses;
- (c) monies paid to or on behalf of the pilots.

(a) *Monies Collected for Third Parties*

Sec. 10 of the By-law implicitly requires that monies belonging to third parties that are received by the Pilotage Authority must be kept segregated, at least as far as bookkeeping is concerned. Its provisions contain directions solely for the disposal of pilotage earnings properly speaking, i.e., pilotage dues. Subsec. 2 stipulates that the net revenue of the District to be shared among the pilots is what remains of "the amounts paid as pilotage dues" after deducting "all amounts payable pursuant to subsec. 1". Therefore, the By-law does not contain any direction as to the disposal of money that is not pilotage dues and belongs to third parties. This direction, however, was not necessary because of the basic principle that what has been collected for others must be remitted to them and because it is also a requirement of the Financial Administration Act.

These third parties comprise other Pilotage Authorities, the Crown, or other person, including the pilots either individually or as a group when the Superintendent has collected for them monies that are not pilotage dues, and also a separate fund such as the Pilot Fund. This point therefore does not present much difficulty. This explains why miscellaneous items of expenditure include the remittance of dues collected by the Regional Superintendent as an agent for another Pilotage Authority and items payable to the Receiver General of Canada, e.g., in 1967, the item "damage to furniture, \$35". Since the cash receipt of \$214.42 for *saving bonds* had been entered as *revenue*, it had to be shown as an expenditure. It is obvious here that the financial statement is not a true account of the financial transactions of the Pilotage Fund because deductions made at source for this purpose are not indicated. They are included in the general item "distribution to pilots".

At first sight, the payment of licence fees to the Crown is legal because they form part of the Pilotage Authority's expense fund (sec. 328). (Vide Part I, C. 5, pp. 100 and ff.) It would appear, however, that such a credit is merely a bookkeeping procedure since all District expenses are paid by the Crown as a subsidy. It is normal that what belongs directly to the Pilotage Authority's expense fund should be expended first. As for examination fees,

they are similarly paid to the Crown, but, since they themselves are illegal, their only legal disposition is to refund them to the candidates.

Money collected by the Regional Superintendent as a service to the pilots should also be included, i.e., indemnities for overcarriage and quarantine and benefits derived from the group insurance coverage taken out by the pilots for loss of earnings during a period of temporary incapacitation while a pilot is still on active service. Normally, as soon as these monies are received, they should be paid over to the individual pilots concerned. Instead, because of the existence of the common fund and the rules for its operation that have been adopted by the pilots (which at times are not even included in the By-law), these monies are made part of the pool for the purpose of sharing among all the pilots. This will be studied later when analyzing the operation of the pool.

There is also inconsistency regarding indemnities and expenses connected with boarding and disembarking outside the District. While expenses and indemnities collected for boarding or disembarking in a Puget Sound port are fully accounted for in the financial statement, no mention is made of expenses and indemnities collected for embarking and disembarking in California, Oregon or Alaska ports. Although Puget Sound earnings are considered pilotage dues for pooling purposes, earnings and expenses in the other ports are paid directly to the pilots concerned with no mention in the financial statement. There is no valid reason for such inconsistency in procedure. It is immaterial whether the latter receipts should or should not form part of the pool. Their disposal should be reflected in the financial statement.

(b) District and Service Operating Expenses

There are two items that come under this heading—pilots' travelling expenses and the cost of accessory services.

As seen earlier, the pilots are treated as employees in the British Columbia District. They are not required to bear their own operating expenses, a requirement which is only compatible with the status of free and independent contractors. Therefore, the pilotage dues are deemed to be the property of the employer (the Pilotage Authority) and one of his first obligations is to reimburse each individual pilot for any expenses he incurs in order to provide his services. Hence, subsec. 10(1)(b) of the By-law requires the Superintendent to reimburse the pilots their out-of-pocket expenses incurred for that purpose.

On returning from an assignment, the pilots are expected to file a detailed account of their travel claim together with their source form. These expense accounts are checked by the Pilots' Committee and, if necessary, corrected. In 1963, it was the practice of the Committee to allow each pilot to include \$50 per month for incidentals without supporting detail. In this field, the Superintendent's office frequently limits its verification to arithmetical accuracy. This practice can only be frowned upon because it is first,

contrary to the By-law and second, it makes the figures quoted as the individual earnings of pilots incorrect.

B.C. is an extended coastal District with all its pilot stations in the Southern Region. As a result, the B.C. pilots are required to travel extensively by public transportation to and from assignments.

As might be expected, this item of operating expense is always very large. Rising travelling expenses allied to an increased number of assignments, especially in the Northern Region, have forced up the aggregate amount of these expenditures from \$209,467.32 in 1962 to \$329,692.80 in 1967.

The second item of service operating expenses is the cost of accessory services which also normally forms part of the pilot's own operating expenses when he is an independent contractor, i.e., the cost of pilot boat service and, since 1966 in the B.C. District, rental of radiotelephone equipment. As pointed out in Part I, C. 5, pp. 107 to 109, and C. 6, p. 183, the pilotage dues charged according to the tariff must not be confused with the price a pilot has to pay for obtaining these accessory services. The tariff charge for such services is merely one of the components that enter into the computation of the total pilotage dues for a given assignment, i.e., the total price a ship has to pay for the pilotage service she has received from a pilot. However, the two generally coincide. This is the case in the B.C. District for the pilot vessel service provided by the Government and the radiotelephone charge laid down in the tariff. Because of Government subsidies, it is also the case when pilot vessel service is provided by private operators since the ship pays only half the hire charge (which is also the cost to the pilot) and the Government pays the operator the other half. Therefore, when these pilotage dues are collected, they must be paid to the Government for the services provided by D.O.T. and to the various private operators concerned for half the cost of launch hire collected from the ships concerned. The practice with regard to the last item is for the Regional Superintendent to pay directly to the operators one-half the total fees collected and to give the Ottawa headquarters details and instructions about the payment from there of the other half to the operators concerned (Ex. 1493(m)). The half share paid by the Crown is not reflected in the District financial statement.

(c) Monies Paid to or on Behalf of the Pilots

Sec. 10 of the By-law requires that, before the pilotage dues can be shared among the pilots, the following deductions should be made:

- (i) the pilots' compulsory contribution to their pension plan, the amount of which is to be administratively determined annually by the Pilots' Committee but which shall not be less than ten per cent of the revenue received from pilotage dues (subsec. 12(2)); the

monies received on account of the pilot boat charge and radiotelephone charge for this purpose are not counted as pilotage dues (subsec. 12(5)); this distinction is in conformity with the provisions of subsec. 319(1) 1934 C.S.A. which makes the contribution deductible from the pilots' earnings and not pilotage dues (vide Part I, C. 5, pp. 107 and ff.);

- (ii) the pilots' travelling expenses;
- (iii) the money received in payment for charges made for pilot boat services and rental of portable radiotelephone equipment;
- (iv) the pension benefits owing pursuant to rights acquired prior to the abolition of the Pilot Fund (subsec. 10(1)(e), secs. 38-49, and sec. 50). (Vide pp. 192 & ff.).

Sec. 10 does not make a distinction between pilotage dues earned by the pilots' services and those collected merely on account of the compulsory payment system. The result is that the latter remain in the pool for eventual distribution among the pilots as part of their remuneration. This is not permissible under the Act (vide Part I, C. 5, pp. 98-100 and pp. 104 and 105). Up to 1960, the By-law provisions required that these pilotage dues be paid into the Pension Fund. This was not altogether correct but was a logical result of the situation following the assumption of responsibility by the Department of Transport of all the District operating expenses, thereby rendering the Pilotage Authority's expense fund unnecessary (vide Part I, C. 5, p. 100). As a consequence, the receipts that belong to that expense fund should have been paid to the Receiver General in partial reimbursement for the direct subsidies received, a procedure which, as seen earlier, was adopted with respect to licence fees. Instead, the Pilotage Authority had decided to extend the application of subsec. 351(2) C.S.A. to all pilotage dues paid as a result of the compulsory payment system. This was a reasonable step in the circumstances although it was illegal, since an amendment to the Act would have been necessary to deal with the new situation. However, in 1960 (P.C. 1960-841 dated June 17, 1960), this By-law provision was deleted at the request of the pilots (Ex. 1290) who claimed that the compulsory payment system had been imposed in order to increase their earnings; as a result, these dues thereafter formed part of the pool. Although the resulting text of the regulation is in conflict with the pertinent provision of the Act, the Superintendent took the By-law as his authority for ceasing to segregate these dues and, in fact, has since paid them every month to the pilots as part of their share of the pool. The result is that he has been misapplying public money. As seen on page 61, this item of revenue has increased many times over in recent years from \$314.47 in 1960 to the considerable sum of \$44,116.99 in 1967.

Deductions for pilots' expenses and the cost of auxiliary services have been dealt with above. The amount paid into the Pension Fund includes fines collected from pilots pursuant to sec. 708 C.S.A. (vide Ex. 1493(a)). The situation created by the surrender of the Pension Fund to the Pilots' Corporation, the abolition of the Pilot Fund, the legality of compulsory contributions and payment from the Pilotage Fund of the pension benefits payable from the defunct Pilot Fund will be studied later.

The sum remaining from the amounts paid as pilotage dues after these deductions (whether they are legal or not) is termed in the By-law the "net revenue of the District". It forms the pilots' common fund or pool. Subsec. 10(2) requires the Regional Superintendent to share all the money in the fund among the pilots on the basis of their availability for duty. However, the probationary pilots receive only "compensation in an amount to be fixed by the Authority after consultation with the Pilots' Committee" (subsec. 18(3)), which is currently fixed by administrative decision at seventy-five per cent of a full-fledged pilot's share. (Re the legality of this restriction, vide Part I, C. 8, pp. 262 and 263.)

In practice, the situation is different because the Superintendent, acting upon the request of the Pilots' Committee, makes other deductions unauthorized by legislation from the common fund prior to computing shares. These deductions can be divided in two groups:

- (a) fixed group expenditures of a recurrent nature incurred for the direct benefit of the individual pilot, i.e., premiums for the various group insurances they have obtained to cover, *inter alia*, loss of earnings due to illness, disability, suspension, or cancellation of licence;
- (b) expenses incurred in the promotion of professional or group interests.

By making these deductions that are not authorized by legislation, the Regional Superintendent involves his own financial responsibility because he could be required by any pilot to reimburse his share of expenses which he has not personally authorized. Neither the Pilots' Committee, nor the majority of the pilots, nor the Pilots' Corporation, has the right to dispose of any part of an individual pilot's revenue without his consent (vide Part I, C. 4, pp. 90 and 91). At present, the only possible way for the Regional Superintendent to protect himself would be to obtain the individual consent of all the pilots on each of these items and such consent is always liable to be cancelled at any time by any pilot. It is considered, however, that provision should be made in new legislation to legalize the present situation as is recommended in the Commission's Recommendation 25 (vide Part I, C. 11, pp. 549 and ff.).

The Department of Transport pointed out that it is only in British Columbia that the Pilotage Authority renders the pilots this assistance. In

the St. Lawrence River Districts, the pilots have their own association which handles all their business transactions, and in the other Districts where the Minister is the Pilotage Authority, the relatively small number of pilots do not warrant such assistance (Ex. 1493(i)).

It is quite logical to pay the first group of deductions out of the pool, i.e., out of the pilots' own remuneration, because as fringe benefits they form part of the actual remuneration of each pilot. This item is fairly constant from year to year, e.g., \$18,508.32 in 1962 and \$19,117.55 in 1967.

The "Pilots' Licence Insurance" which was in force in 1964-65 provides a maximum indemnity of \$1,000 per month plus \$8 per day subsistence allowance for a maximum of fifteen months in the event of the loss or restriction of wages or salary resulting from a shipping casualty, provided the ground for the suspension or cancellation of licence was not wilful misconduct, lack of sobriety or conviction for a criminal offence. The insurer also assumed the legal costs. (Ex. 1372).

However, it is unwarranted to pay any expenses in the second group out of the pool because this amounts to a devious way of assessing membership dues and, hence, concealing the true financial picture of the cost of the Pilots' Corporation to its members. Such a procedure might have been acceptable when the pilots had not grouped themselves into any form of professional association and payment out of the common fund was the easiest way to share these expenses equitably. There is no valid reason for perpetuating the practice now that all the pilots without exception are members of the British Columbia Coast Pilots' Corporation whose main function is to promote the professional and group interests of the pilots (p. 75). Any such expenses incurred must now be met out of the Corporation's own revenues and assets, i.e., through membership dues and special assessments. The Corporation's own financial statements would then be truly representative of the Corporation's activities. At present, some are paid as pool expenses, others as Corporation expenses.

In the District financial statements, except for the item *telephone* (pilots' own telephone), this second group of expenditures is not itemized and is entered under the misleading title "Stamps, Stationery and Miscellaneous" (Ex. 1493(i)). In 1967, relations between the pilots and the shipping interests and also the Pilotage Authority were strained and some members of the Pilots' Committee had to travel at least twice to Ottawa to make verbal representations to the Department of Transport. This is no doubt the reason for the increase in this item of group expenditures to \$4,598.53. However, to present the correct total, the refund of \$512.75 unexpended travelling expense advance should be deducted (Ex. 1493(a)).

The factual situation differs further from that foreseen in the By-law because, at the pilots' request, money not derived from pilotage dues is

entered into the pool, e.g., statutory indemnities for overcarriage and quarantine, and indemnities received from the pilots' group insurance for loss of earnings during the temporary incapacitation of active pilots.

Subsec. 12(1) of the By-law states that the indemnities payable under secs. 359 and 360 C.S.A. must be paid to the Pilotage Authority to form part of the District Pilotage Fund. There is no objection if the Pilotage Authority assists the pilots concerned to collect these personal indemnities but, under Part VI of the Act, the Pilotage Authority has no power to make any regulation on the matter and, therefore, can not impose a procedure for their collection or, even less, change the beneficiary. Hence, this provision is illegal (vide C. 5, pp. 101 and 105, and C. 6, pp. 201-203). The wording of subsec. 12(1) does not, however, make these indemnities pilotage dues and, therefore, they should not form part of the pool although it appears this is both the intention and the practice. Despite the fact this procedure is at present illegal, it is both reasonable and a logical consequence of the pooling system, since the pilots are considered on duty for the purpose of pooling when overcarried or detained in quarantine. Because they have not lost any earnings, they should not be entitled to retain the statutory indemnities but should pay them into the pool as partial compensation for the earnings they would have normally brought in if they had not been so detained.

The same situation obtains with respect to group insurance benefits. This again is a modern situation created by the institution of pooling. If periods of absence due to illness or injury are counted as active time for pooling purposes, the common fund fulfils one of the aims of the statutory Pilot Fund, i.e., to provide financial assistance to active pilots during periods of incapacitation. It is considered that this is a realistic attitude and a very logical procedure which should be made possible if, and when, pooling is made legal (vide Part I, Recommendation 39, pp. 583 and 584). It is quite reasonable for the pilots to take out group insurance coverage against the possibility of an excessive drain on the common fund and it is logical for the ensuing indemnities to form part of the pool as long as remuneration is being drawn without contribution. However, this arrangement should cease whenever a pilot no longer participates in the pool. If he does not receive a full share, the pool should receive on his behalf only the amount of the aggregate pool contribution and insurance benefit that exceeds a full share.

In 1962, there was no revenue from either of these sources but, in 1967, insurance claims brought in \$5,716.28.

The total sum remaining after all these deductions is distributed among the pilots in equal shares (three-quarter shares for the probationary pilots) calculated on the basis of availability for duty. These shares are what the pilots call their "take-home pay" (vide p. 133).

The pool is shared on the basis of availability for duty irrespective of the number or nature of assignments each pilot may have been given or the number of hours actually spent piloting.

Sec. 11 establishes what time should be counted as time on duty:

- (a) In addition to the actual time a pilot is on duty or available for duty, the following shall be counted as duty time for the purpose of computing shares: regular annual leave of absence and sick leave with full rights of participation, with the proviso that time on sick leave with half pay is to be counted as half time only.
- (b) On the other hand, leave without pay (obviously including absence without leave) as well as time during which a pilot's licence is suspended, do not count. Time off the assignment list pursuant to an order made by the Superintendent under sec. 31, i.e., when the Superintendent has reason to believe that the pilot about to go on duty is impaired and, therefore, removes his name from the assignment list, is also not counted. (Re the legality of this last requirement, reference is made to Part I, C. 9, p. 401.)

Here, again, as seen earlier (pp. 77-78), the actual situation is quite different from that provided for in the By-law:

- (a) According to sec. 34, the only official leave of absence with pay is sixty days per year but the pilots take an additional seventy days, i.e., seven days each month when they are not on annual leave. In practice, both official and unofficial regular leave is counted as active duty for pooling purposes.
- (b) Sec. 35 provides for sick leave to be granted at the discretion of the Superintendent for a maximum period of twelve consecutive months, the first three counting as active time for pooling purposes and the rest being without remuneration. If a pilot is injured on duty, the first six months are calculated as full active time, while the rest counts for half time. In 1963, despite these By-law provisions, sick leave without limitation was considered active time for pooling purposes, presumably on account of the insurance benefits paid into the pool. However, it would appear that the By-law provisions are now more strictly followed on this point as is shown by the \$43.26 item of miscellaneous revenue. This represents a pilot's payment to the pool of his share of the premium of group insurance for loss of earnings during incapacitation which he paid (through the pool because the contract is in the name of the group) in order to continue his coverage after he was no longer entitled to participate in the pool on account of the length of his absence due to a prolonged illness (Ex. 1493(a)).
- (c) As indicated earlier, a number of deductions are made from the individual shares of the pilots before disbursement to them. These are made as a service to the pilots. They include at source deduc-

tions for income tax, Canada Pension Plan, Canada Savings Bonds, donations, etc. These are not reflected in the annual financial statement.

(2) PILOTS' RESERVE FUND

The British Columbia Pilots' Reserve Fund is unique to their District. It was set up to provide a means of financing their common fund or pool (Ex. 1424).

To comply with the By-law, it is essential that shares be distributed to the pilots entitled to the benefits of the pool within the extent of their rights at the time the dues were earned. Normally, the dues should be paid immediately, in which case there would be no problem. The situation is not altered on account of the billing procedure adopted even though it results in unavoidable delays between the time services are rendered and payment is received, varying from a few days to a few months.

There are two ways to deal with the situation. One is to distribute the shares as the dues are collected. This method requires the complicated accounting procedure of making a separate distribution for each payment of dues since, in fairness, the money should be divided among the pilots who were on strength when the dues were earned rather than among those on strength when they were collected. The other method is to treat earned dues as if they had been paid immediately; in other words, to share them before they are collected. Aside from the problem of financing, the only possible complication arises from bills that turn out to be uncollectable. Experience has proved that the incidence of these is so small they can be disregarded. On the other hand, this method has definite and substantial advantages in simplicity and ease of sharing.

A prerequisite for adopting this second method is financial backing, i.e., a source of funds from which the Pilotage Authority can draw the money needed to cover outstanding bills making repayment as dues are collected. When the District was reinstated in 1929, the Pilotage Authority was faced with the problem. The Chief Accountant of the former Department of Marine and Fisheries adopted this method and directed a monthly distribution of dues earned during the month, whether or not they had been collected.

Since the Pilotage Authority had no assets and no reserve funds, a means of financing had to be devised. There were two ways of finding the money: borrow from a bank, with resultant fees and interest, or create a reserve fund. The British Columbia pilots voted in favour of a reserve fund.

The fund was kept up haphazardly by not distributing the full amount of monthly earnings and holding sufficient money in the pool to meet expected requirements. This method was abandoned in 1953 when the then accumulated fund was distributed among the pilots active at that time. In 1954, the pilots chose to create a separate Reserve Fund by means of individual contributions on loan. On retirement or death, each pilot or his estate is entitled to

full repayment of his loan. These were originally fixed at \$150 per pilot but, in 1963, were increased to \$300 with the concurrence of the Pilots' Committee. From 1954 to 1960, in addition to the pilots' contributions, the small undistributed monthly balance in the pool was added to the Reserve Fund. On October 31, 1961, following the Treasury Board auditors' instructions, the Superintendent segregated the accumulated undistributed monthly balances of the pool from the Reserve Fund and distributed this surplus to the pilots. Since that time, the fund has consisted of pilots' contributions only. In 1963, it contained \$19,650 (\$300 each from sixty-four pilots, and \$225 each from two probationary pilots). The contributions are collected in \$50 monthly instalments which the Superintendent deducts monthly from the remuneration of the newly licensed pilots until the full amount is paid (Ex. 1493(m)).

(3) PILOTS' CORPORATION FINANCE

As stated on page 75, since 1963, the pilots of British Columbia have grouped themselves in a professional corporation under the name of "The Corporation of British Columbia Coast Pilots" (Ex. 1166) to which they all belong.

Appendix G is a comparative table of the Corporation's financial statements of receipts and disbursements for the calendar years 1963, 1964 and 1965. At the bottom of each is a paragraph headed "Bank Account". It shows, *inter alia*, as of January 1, 1963, a credit balance of \$683.78 and, as of December 31, 1965, \$17,902.45.

Although for the purpose of the Commission's inquiry it was not deemed necessary to investigate fully the financial operations of the Pilots' Corporation, an analysis is made of the statements furnished (Ex. 1458) in order to indicate the nature of the activities of the Corporation, bearing in mind the study contained in Part I of the Report (C. 4, pp. 84 and ff.) and the Commission's General Recommendation 25 (vide Part I, C. 11, pp. 549 and ff.).

The Corporation's 1963 financial statement is obviously not correct. It covers the full calendar year and begins with a bank balance of \$683.78 on January 1, 1963, when the Corporation was not in existence. The application for incorporation was signed February 21, 1963, and a letter from the Secretary of State, dated March 4, 1963, acknowledged receipt of the application and stated that the letters patent would be dated February 22, 1963. On March 8, 1963, the Department of the Secretary of State acknowledged receipt of a cheque in the amount of \$110 in that connection (Ex. 93). The 1963 statement makes no mention of this expenditure nor of the other expenditures connected with incorporation. Surprisingly, the only remark made by the chartered accountants who prepared the report dealt with the Canadian Merchant Service Guild dues, the payment of which does not appear as an expenditure for the year 1963. It was explained that

these dues had been paid in advance in 1962 while those for 1964 were paid in January, 1964. A partial explanation for the foregoing discrepancies might be that the pilots' "Club Fund" became part of the Corporation Fund on incorporation. The "Club Fund" belonged exclusively to the pilots and the Pilotage Authority was not involved in any way. This fund consisted of monthly contributions which the pilots as a group had agreed to make in order to enable their Pilots' Committee to meet certain group expenses. Prior to incorporation, the monthly fee was \$7.50. The Guild dues were the main expenditure of the fund and what little was left was used for such group expenses as floral tributes and Christmas gifts. This would explain the bank balance as of January 1, 1963, and the accountants' remarks about the Guild dues, but not the absence in the report of the cost of incorporation, unless this was paid by the Superintendent of the District and entered with other group expenses in 1963.

(a) Receipts

The main sources of revenue of the Corporation are membership dues and special assessments that may be levied from time to time as authorized by the members. As pointed out earlier, another important method of financing the Corporation's activities and taxing its members indirectly is to pay part of the Corporation's expenses out of the pool. Since 1963, the amounts indirectly obtained in this way have been:

Year	Telephone	Stamps, Stationery, Miscellaneous
1963.....	\$ 216.20	\$ 3,733.14
1964.....	213.65	2,011.95
1965.....	206.80	726.91
1966.....	503.39	2,689.46
1967.....	790.65	4,598.53

With incorporation, the pilots obtained a means of control over the amounts their Committee or their Board of Directors could obtain from the first two sources, i.e., voting membership dues at a general meeting of the Corporation and, when required, special assessments on members (Corporation By-laws, sec. 56 (Ex. 93)). This control is nullified if the Board of Directors is permitted to draw from the pool without the pilots' expressed consent. Furthermore, as stated earlier (p. 182), such a practice should no longer be tolerated.

A fourth source of revenue is the profit made since 1964 from the sale of charts. This profit must be made on a commission basis because there is

no item of expenditure for the purchase of charts. Relatively speaking, it is a small item. The final source is merely a bookkeeping adjustment, i.e., refunds on certain expenditures.

(b) *Expenditures*

The main item of expenditure is the Canadian Merchant Service Guild dues which must have been \$95 per pilot in 1964. The other items recorded are relatively small, i.e., allowance in the form of pension to retired members, Christmas gratuities, and very small miscellaneous items of stationery, postage and exchange.

The expenditure item "Guild dues" is obviously illegal. Since the charter of the Corporation was granted under Part II of the Canada Corporations Act, it is a non-profit organization whose activities must be "without pecuniary gain to its members". Pilots, like any other persons belonging to the Canadian Merchant Service Guild, are members on an individual basis and their membership dues are owed personally. To pay Guild dues with Corporation money amounts to a direct financial benefit to the Corporation members, not to mention that the procedure has the effect of enforcing compulsory Guild membership on them.

This Commission knows neither the nature nor conditions of entitlement for pension benefits to ex-members. At first sight, such a disbursement also appears to be illegal for the same reason.

It is extraordinary to find such irregularities revealed in a financial statement prepared by chartered accountants without pertinent observations to inform and warn the membership. This would indicate that the audit was carried out in a most perfunctory way without verifying, *inter alia*, the charter and By-laws of the Corporation.

These statements obviously do not show a true picture of the activities of the Corporation because, *inter alia*, the large expenditure to cover the cost of representation is not shown since it was paid from the pool.

The revenues of the Corporation, including the amounts indirectly obtained from the pool belonging to the pilots, are far in excess of its current expenditures and have resulted in a reserve fund that is increasing from year to year. At the end of 1965, it stood at \$17,902.45, of which \$10,542.50 came from special assessments to meet expected expenses in connection with this Commission.

The foregoing indicates the necessity for official surveillance over the activities of Pilots' Corporations whose membership is, in fact or in law, compulsory, as recommended in General Recommendation 25 (vide Part I, C. 11, p. 549). Such surveillance should in no way deprive a Corporation of its powers or interfere with its necessary freedom of action in its field of activities, but should be an effective way of preventing a Corporation from

acting illegally and abusing its powers to the prejudice of some members. Since the activities of such Corporations form part of the working conditions of licensed pilots, Pilotage Authorities must take an interest in them.

8. PILOT FUND

The legality of pension funds and the merits of setting up either a pilot fund or a pension fund under existing legislation are discussed in Part I of the Report, C. 10, to which reference is made. The study hereunder will concentrate on the history and present state of the B.C. District Pension Fund.

A pilot fund derives its revenue from compulsory deductions from pilots' earnings—pursuant to sec. 319 (1) 1934 C.S.A.—fines, pilotage dues—governed by secs. 348-351 C.S.A.—and interest on invested surplus (vide Part I, C. 10, pp. 441 and 442). In the B.C. District, fines have always been paid into the Pension Fund. As seen earlier, revenue from this source has always been comparatively small and, as noted on p. 180, dues collected from ships not employing pilots are not segregated and subsec. 351(1)(b) C.S.A. is not applied.

It appears that no pilot fund existed in any west coast District prior to 1929. In the financial statements studied in the Robb Commission Report of 1919, no mention is made of any item of expenditure for either a pilot fund or a pension fund. Furthermore, Recommendation 21 of the Robb Commission is to the effect that the Pilotage Authority

“should create a pilots' pension fund for this district, deducting 7 per cent from the gross earnings for this purpose”.

However, the Report does not recommend an amendment to the Act to permit a pension fund. Apparently, the Commission was under the impression that the term “pilot fund” in the Act meant, or at least included, “pension fund” (vide Part I, C. 10).

The new Pilotage Authority for the amalgamated B.C. District created such a Pension Fund in its first By-law (approved by Orders in Council dated September 10, 1919, and December 20, 1919 (Ex. 195)). Its only provision on the whole subject is a single mention contained in subsec. 25(a) which requires that out of the Pilotage Fund an

“amount to be determined by the Minister after consultation with the Pilots' Committee shall be set aside each month for superannuation of pilots”.

This Fund was shortlived because the District was abolished shortly afterwards.

When the British Columbia Pilotage District was re-established in 1929, a Pension Fund was created as recommended by the Morrison Royal Commission. It is reported that at first the serving pilots had to buy annuities for the older pilots who were pensioned. Later, the annual contribution was

fixed at seven per cent of the gross revenue. The Fund grew slowly until just before World War II when it was sufficient to pay a few pensions. The maximum pension was then fixed at \$1,500 per annum. Except for the amount of contributions and benefits, the Pension Fund regulations remained substantially the same until 1962.

In 1952 (P.C. 2440), the basis for calculating pension benefits was changed by providing a pension of \$90 per annum for every year of service to a maximum of \$2,250 per annum.

In 1955 (P.C. 1955-707), the yearly credit for service was raised to \$100 with a maximum of \$2,500 per annum.

Then, beginning with the 1960 General By-law (P.C. 1960-841), the annual maximum was deleted and the annual credit was raised. For instance, as of January 1, 1961, the years of service for pension purposes were to be credited as follows:

- (a) \$100 per year prior to March 31, 1950;
- (b) \$110 for the following years up to March 31, 1957;
- (c) \$120 for the years following up to December 31, 1960.

As of December 31, 1960, an actuarial valuation conducted by the Department of Insurance, using an interest rate of $3\frac{1}{2}$ per cent, showed the British Columbia Pension Fund had an actuarial deficit of \$14,446 with total assets of \$951,554 against total liabilities of \$966,000 (vide Part I, p. 773).

Steps had to be taken to remedy the situation. The difficulty lay in the fact that guaranteed fixed benefits were provided in return for variable and unpredictable contributions (vide Audette Committee Report, Part I, C. 10, p. 449).

The remedy first adopted did not alter the nature of the pension scheme but merely provided larger contributions which could be varied from year to year according to need. A By-law amendment dated August 16, 1961 (P.C. 1961-1183) established that the minimum compulsory contribution could be fixed by administrative decision of the Pilotage Authority but was not to be less than ten per cent of the gross pilotage dues collected. The By-law further provided that an actuarial investigation was to be carried out whenever the annual contribution of a pilot at the end of a three-year period varied markedly from \$1,476 per year.

A few months later, a different approach was adopted. The nature of the Pension Fund was basically altered so that, on one hand, the desired actuarial valuation would be attained and, on the other, the annual deficit would be liquidated by diverting part of the contributions to offset the accrued deficit.

By a By-law amendment dated December 13, 1962 (P.C. 1962-1782):

- (a) A procedure was established to make the pilots meet the annual actuarial deficit out of their contributions by deducting from the

total annual contributions \$14,445.62, i.e., the amount of the existing actuarial deficit and merely paying this sum into the Fund without providing the contributors with any future benefits.

- (b) Guaranteed fixed benefits were abandoned. Instead, each pilot was credited at the end of each year with the amount of pension benefits his net share of the aggregate contribution could buy at that time. The net earnings of the Fund were arrived at by deducting from the total earnings the above-mentioned amount of \$14,445.62, and the guaranteed fixed pension benefits that remained, i.e., \$900 pensions for widows.

This was the situation when the Commission sat in British Columbia in 1963. The pilots complained that the Fund had grown from nothing in 1929 to be actuarially sound in 1960 because their large contributions had been out of all proportion to the benefits they received. The pilots were not satisfied with the investment policy. They criticized the Government, which managed the Fund through the Minister of Transport and the Minister of Finance, for having invested a substantial amount in bonds which were currently worth only sixty cents on the dollar and which yielded little interest. They further complained that the Pilotage Authority would not allow them to increase benefits and place their Fund in deficit as it had been up to 1960. They felt that at this rate the benefits were not worth while.

The pilots had come to the conclusion that they would be better off financially if a trust company managed the Pension Fund.

They felt that a trust company would have more incentive to look for more lucrative investments in order to keep the pilots as clients, while the Department of Transport has no such motivation.

The pilots informed the Commission that they had been negotiating a pension plan with a trust company. They filed a comparative summary of the existing pension plan and the proposed one (Ex. 85) according to which the same contributions would provide the following benefits:

- (a) \$140 for each year of service prior to December, 1960, instead of \$100 and \$110.
- (b) \$260 for each year of service during 1961 and 1962, instead of \$120, and whatever pension this actual contribution would purchase thereafter.
- (c) Upon earlier retirement, a pilot would receive in a single payment full refund of the total amount paid into the fund on his behalf, instead of 60% as per the By-law provision.
- (d) A widow would receive a pension benefit: the greater of \$900 or 50% of her husband's accrued pension, instead of the fixed pension of \$900 provided in the By-law.

- (e) A full refund, instead of a 60% refund, would be paid to the estate of a pilot who died a widower without a pensionable child or children.

This information, together with the evidence received, led the Commission to believe that the pilots' aim was to purchase pension benefits in a money-purchase plan as the New Westminster pilots had done in 1958. The situation, as the Commission later found out (D.O.T. letter dated May 3, 1968 and accompanying documents, Ex. 1493(n)), was altogether different.¹⁹ It was a return, with retroactive effect, to the system of fixed guaranteed benefits for variable contributions which had caused the various pilot pension funds to become seriously deficient. Under the proposed plan, the risk was increased in that the fixed benefits were substantially increased.

During the 1963 hearings, the Commission was told that the Pilotage Authority had agreed to the pilots' proposal and had drafted an amendment to the District By-law to implement it. However, no further action was taken because the Department of Justice had ruled that under the existing Act it would be *ultra vires* for the Pilotage Authority to dispose of its responsibility in this manner.

On September 23, 1963, the Corporation of the British Columbia Coast Pilots entered into a conditional trust agreement with the Investors Trust Company whereby the company agreed to act as trustee for a fund to be created by the Pilots' Corporation for the purpose of providing pension benefits to Corporation members. It stipulated that the trustee would have the custody and administration of the fund together with full power to invest in its own name in bonds, stocks and other investments allowed for registered pension funds. The pension benefits were to be fixed by the Pilots' Corporation at its sole discretion. For the time being, these were listed in a schedule appended to the trust agreement (they correspond to the 1963 proposal detailed earlier) but were liable to be changed at any time, provided the change would not result in a reduction of benefits already accrued prior to such amendment. The trust company would merely act as a paying agent for the Pilots' Corporation, the latter being solely responsible for determining the right to benefits. The first contribution to the proposed trust fund was to be the accumulated assets of the existing fund which were to be transferred by the Government. Thereafter, further contributions would consist of whatever sums were necessary to cover the benefits and were to be paid by the Regional Superintendent out of the British Columbia Pilotage Fund. The Pilots' Corporation could terminate the fund

¹⁹ The statement of fact contained in Part I, p. 453, subpara (a) is, therefore, incorrect and should be corrected by deleting the last part of the first sentence from the fifth line after the word "company" and adding a cross-reference to this page and the following pages of Part II for details of the nature and procedure of the present B.C. pension plan.

at any time and all money accumulated up to that time would be used to pay outstanding pension liabilities according to a scale of priorities listed therein. Either the Pilots' Corporation or the Investors Trust Company could terminate the trust agreement unilaterally at any time. In that event, the Pilots' Corporation would have to appoint a new trustee to whom the fund would be transferred. The document contained no prerequisite for the qualifications of such a trustee and, therefore, the Pilots' Corporation could appoint any one at its own discretion.

Except for already acquired benefits the plan applies only to "members of the Corporation" (Plan sec. 6) and, therefore, excludes any licensed pilot of the British Columbia Pilotage District who for any reason is not a member. The term "member of the Corporation" is not to be confused with "Member" used alone as indicated by the definition given in the Plan of the term "Member" (Plan, subsec. 2(6)) " 'Member' means—a licensed pilot and a member of the Corporation". Furthermore, it stipulates that the pilots are the employees of the Corporation (Plan, sec. 7, last para.) and that the normal retirement age from pilotage service is 65 years, unless this is postponed with the prior approval of the Corporation (Plan, sec. 7).

The terms and conditions listed in the previous paragraph as well as the whole proposal are directly contradictory to the Canada Shipping Act and, therefore, can not be acted upon unless the Act is amended. This was done in an indirect way by the device of employing appropriation legislation. When Parliament authorizes spending a sum of money for a stated purpose, it is assumed to have also approved the purpose which then becomes law, thereby automatically amending any provision of any existing statute with which it conflicts.

By the Appropriation Act No. 2, 1966 (14/15 Eliz. II, c. 3, assented to March 9, 1966) a sum of \$1 was voted for the purpose of giving effect to the pilots' proposal. Vote 8b of the Department of Transport of the said Act reads as follows:

"8b To authorize in accordance with such terms and conditions as the Governor in Council may prescribe, the transfer of the assets and administration of the Pension Fund of the British Columbia Pilotage District established under the Canada Shipping Act, 1934, to such person as the Governor in Council may approve, and to authorize the investment of the assets of the Pension Fund, subject to the terms and conditions of the transfer, in such manner as may be determined by agreement between the person to whom the transfer is made and the Corporation of the British Columbia Coast Pilots."

On July 21, 1966, the trust agreement and the pension scheme were amended to give a guarantee to acquired rights. The trustee was specifically required to pay out of the fund the pension benefits that had accrued under the existing pension scheme and the maximum age requirement would not apply to "a member of the Corporation who was a member of any pension plan for which this pension plan is substituted".

On September 22, 1966, the Government gave effect to the pilots' proposal and by Order in Council P.C. 1966-1830 (Ex. 1493 (n)) authorized the Minister of Transport and the Minister of Finance (the statutory trustees of the existing fund) to hand over its assets²⁰ and transfer its administration to the Investors Trust Company. The Order in Council reads as follows:

"The Committee of the Privy Council, on the recommendation of the Acting Minister of Transport and the Acting Minister of Finance, advise that Your Excellency, pursuant to Vote 8b of the Department of Transport in Schedule B of the Appropriation Act No. 2, 1966, may be pleased to authorize in accordance with the terms and conditions as prescribed in the attached Trust Agreement concluded on the 23rd day of September, 1963, as amended, between the Corporation of the British Columbia Coast Pilots and the Investors Trust Company the transfer of the assets and the administration of the Pension Fund of the British Columbia Pilotage District established under the Canada Shipping Act 1934 to the Investors Trust Company and to authorize the investment of the assets of the Pension Fund, subject to the terms and conditions of the aforesaid Trust Agreement."

On the same day, the Governor in Council gave approval to an amendment to the pension provisions of the District By-law (P.C. 1966-1812) to comply with the new situation thus created. The main features of this amendment are:

- (a) The pension scheme continues to be governed by the statutory provision of the Canadian Shipping Act in so far as it is necessary to make the payment of the pilots' contributions compulsory.
- (b) The contribution which, according to the By-law, must not be less than 10% of the revenue received from pilotage dues is to be determined at the end of each year by the Pilots' Committee alone.
- (c) The District Superintendent is to act as collecting agent of the contributions which are to be paid over to the Investors Trust Company.
- (d) The By-law enumerates the pension benefits that apply up to the date of the amendment but is silent on future benefits that accrue under the new scheme.
- (e) Any payment made by the Investors Trust Company in respect of liability incurred under the former pension plan operates to discharge such obligation on the part of the defunct pension fund.
- (f) Payment of benefits acquired under the former pension plan out of the District Pilotage Fund is authorized.

²⁰ According to the actuarial valuation carried out by the Wyatt Co. at the Commission's request, as of December 31, 1963, the assets of the British Columbia Pension Fund, not including accrued interest, amounted to \$1,307,277, with \$1,227,018 in actuarial liabilities and an actuarial surplus of \$80,259 (vide Part I, Appendix XII, p. 774).

COMMENTS

The Commission can not but agree with the Government's decision to terminate its responsibilities toward the B.C. District Pension Fund and to let it become the responsibility of the pilots. This is the course of action the Commission has recommended where the pilots are not Crown employees (Commission's General Recommendation 39, vide Report, Part I, pp. 581 and ff.). The Commission is, however, concerned whether proper safeguards have been provided to guarantee the payment of pension benefits acquired under the defunct pension scheme.

The Commission is also concerned about the extent of the ensuing legislation because by virtue of the terms of the Order in Council made to give effect to the provision of the Appropriation Act, the trust agreement and its appendix as amended also became law. This raises three major questions:

- (a) Was the Pilots' Corporation given control of the pilotage service (assignments and pilotage earnings) since it is mentioned in the agreement and the plan annexed to it states that the pilots are the Corporation's employees?
- (b) Were sec. 338 and subsec. 329(i) C.S.A. amended thereby so as to make the approval of the Pilots' Corporation, together with physical fitness, a prerequisite to granting a licence to pilots aged 65 and over?
- (c) Would it have the effect of denying a licensed pilot who does not happen to be a member of the Corporation (either because he did not join or because he was expelled) the benefits of the new pension scheme to which he is forced to contribute because, according to the terms of the agreement, "Membership in the Plan" is afforded only to "Members of the Corporation"?

In any case, the Commission considers that this legislative method should be considered merely a temporary measure to take care of an emergency and that the situation should be corrected in due course by a direct, clear, straightforward amendment to the statutory provision. To insert in the Appropriation Act a provision which substantially amends the Canada Shipping Act can not but result in compounding the confusion which now surrounds pilotage legislation.

Chapter D

RECOMMENDATIONS

SPECIFIC RECOMMENDATIONS AFFECTING THE BRITISH COLUMBIA PILOTAGE DISTRICT

PREAMBLE

This chapter contains the Commission's recommendations of a local character which apply exclusively to the British Columbia Pilotage District. According to the practice adopted in Part I of the Report many other proposals in the form of comments, remarks and conclusions are contained in the previous chapters of Section One; they have not been listed here to avoid repetition and also because they should be read in their context for better comprehension.

When drafting the Report the Commission gave careful consideration to all recommendations received. Those made during the public hearings of the Commission in British Columbia are listed in Chapter B., Briefs, pp. 25-30, and after each recommendation so received a reference is given to the place(s) in the Report where the subject-matter of each is dealt with.

RECOMMENDATION No. 1

Pilotage Waters Along the West Coast of Canada to Be Clearly and Accurately Defined; the Safety and Efficiency of Naviga- tion to Be the Determining Factor in Establishing the Seaward Extent of Pilotage Waters

The present uncertainty about the exact location of the seaward limit of pilotage waters on the B.C. coast must be corrected (vide pp. 31 and ff.)

However, this seaward limit should not be defined arbitrarily. The same criteria that apply when determining the seaward limit of any other type of District should also apply to coastal Districts (vide General Recommendation 8 [Part I, pp. 478 and 479]). Internal waters and the territorial sea should not be made part of a coastal District merely because they are Canadian waters, nor should pilotage waters be restricted seaward to the limit of the territorial sea. The limits of a Pilotage District, seaward as well as elsewhere, should be determined by the requirements of navigation and the pilotage service. Therefore, where waters are not confined and there are no unusual navigational problems, such areas should not be included unless

they are required to fit into the planned organization of the District. For instance, the territorial sea bordering the west coast of Vancouver Island should not *per se* be included in pilotage waters, the reason being that it does not consist of confined waters. Normally, the only part of the territorial sea that should become pilotage waters comprises those waters that are necessary to organize pilotage in the confined approaches on the west coast of Vancouver Island where ships may call.

On the other hand, if, on account of shallow waters, reefs or other obstacles or circumstances, confined waters extend beyond the territorial sea, the seaward pilotage limit should include the full extent of those confined waters beyond the territorial sea. It is a recognized principle of international law that the extent of sovereignty of a country over the sea bordering its coast may vary depending upon the nature of the right to be exercised or the service involved. For instance, the Territorial Sea and Fishing Zones Act of 1964 recognizes that for the protection of the fishing rights of Canada its sovereignty extends to "those areas of the sea contiguous to the territorial sea of Canada" for a distance seaward of 9 nautical miles (sec. 4). In 1937, special baselines were established for the purpose of applying the Customs Act in order to calculate the nine-mile zone of "territorial waters" where that Act would apply. (Vide Canadian Year Book of International Law 1963, *Les Eaux territoriales du Canada au regard du Droit International*, by Jacques-Yvan Morin).

The Supreme Court of Canada in the "Reference re ownership of off-shore mineral rights" (1967, 65, D.L.R. (2d) 353, p. 375) states that Canada now has full constitutional capacity to acquire new areas of territory and new jurisdictional rights which may be available under international law.

Therefore, it is considered that means should be provided in the new Pilotage Act whereby the seaward limit of a Pilotage District could be established separately and independently of any other legislation concerning territorial waters.

It is further considered that the actual fixing of the seaward limits should be a subject-matter of legislation by regulations so that such limits could be modified from time to time as required by the changing exigencies of navigation, shipping and other factors. This is a function within the province of the Central Authority (vide General Recommendation 17, Part I, C.11, p. 507) which should be authorized to enact the full extent of the required legislation defining pilotage waters, i.e., it should be specifically authorized to establish the limits of a District without consideration for any other legislation concerning the extent of Canadian sovereignty over the high seas.

Because these limits, as well as the other limits of a District, must be clearly and accurately defined, the Act should require the Minister responsible for surveying and mapping in Canada to indicate the limits so defined on all large-scale nautical charts of the area concerned.

RECOMMENDATION No. 2

Canada and the United States of America to Settle by International Agreement the Problems Arising from the Contiguity of the Canadian and American Pilotage Services on the Boundary Lines in Order to Ensure Safety of Navigation and Continuity of Service

There are two main problems in this field:

- (a) the territorial competency of Canadian and American pilots when the navigable channel runs irregularly along and over a boundary line;
- (b) the changeover of pilots where a boundary line crosses a channel.

On the Canadian west coast, the first problem occurs all along the boundary line from the Strait of Juan de Fuca up to the 49th parallel in the Strait of Georgia and in the north mainly in Pearse Canal and its approaches, and in Portland Canal.

A number of treaties, the oldest being the Oregon Treaty of 1846, grant freedom of navigation to both Canadian and American vessels in the boundary waters between the United States and Canada lying south of the 49th parallel, including Haro Strait and Juan de Fuca Strait, but, as far as pilotage is concerned, Canadian and American pilots navigating these waters are without territorial competency whenever they cross over the boundary line into the waters of the other country. This becomes a special practical problem in Haro Strait because, to ensure safety of navigation, a vessel must cross the boundary line many times *en route*. This problem has been unofficially resolved by a gentlemen's agreement between all those locally concerned. This, however, is only a makeshift arrangement which is workable in practice but is very unsatisfactory from a legal point of view as was demonstrated at the time of the Puget Sound dispute (vide pp. 31-33).

The question can only be legally settled through an international agreement between the Federal Governments of Canada and the United States such as covers pilotage on the Great Lakes and their connecting waters.

Many solutions are possible but the most practical would be to give legal effect to the prevailing unofficial agreement which experience has proved to be satisfactory in practice (vide p. 32). It is considered that it would be unwise either to place the pilotage area concerned under joint control or to divide it into two zones, each under the exclusive jurisdiction of one country. A great percentage of the vessels using these waters enter American waters only by accident, i.e., during a transit of Haro Strait when not bound to or from a Puget Sound or State of Washington port. On the other hand, all vessels transiting Haro Strait are bound either to or from the internal Canadian waters of the Gulf of Georgia. Although it would be

feasible in theory, this route is, in fact, not used by vessels bound to or from an American port south of the 49th parallel either from or to sea *via* Juan de Fuca Strait or from or to another American port south of the 49th parallel.

The second problem is the same that arises at the common border of all contiguous Districts (vide General Recommendation 9, Part I, C. 11, p. 480). The fact that in this case the common limit is the boundary line of two countries does not alter pilotage requirements and the only difference is that the necessary arrangements (such as a common boarding zone, pilot vessel service, pilot accommodation and despatching facilities) must be sanctioned by international agreement.

This is not a problem for the moment at the northern boundary, partly because there is little requirement for pilotage and also because there is no government-controlled pilotage service in Alaska. However, if an intergovernmental agreement is reached, it would be preferable to have this boundary included in order to cover all possible eventualities.

The problem occurs at two places on the southern boundary depending upon the route adopted: at the 49th parallel, if the Rosario Strait route is taken, and at the agreed changeover point, if the Haro Strait route is used. It is considered that for the present the simplest solution in Rosario Strait is to make full use of the Sand Heads boarding station for both the Canadian pilots (B.C. and New Westminster Districts) and the American (Puget Sound) pilots. To achieve this goal, the area in the Gulf of Georgia which is now part of the District of New Westminster should become a common boarding area where the transfer of pilots, i.e., Puget Sound, B.C. and New Westminster District pilots, could be effected. In this zone, the pilots of both countries should have competency to pilot for the purpose of commencing or terminating an assignment.

It will not be necessary to alter these arrangements basically, if and when the proposed Roberts Bank port becomes a reality, other than to make port pilotage at Roberts Bank the exclusive jurisdiction of the B.C. pilots and arrange for pilot vessels to effect the changeover of American and B.C. pilots closer to the boundary line when vessels are bound to or from that port.

Canadian pilots should not be authorized to board or disembark outside the District when a transit is made through Rosario Strait since, in the circumstances, this would entail an unnecessary waste of pilots' time.

On the Haro Strait route, a boarding station should be established at the agreed changeover point in the open waters of the entrance to the Strait. In fact, there seems to be no reason why the present boarding station off Brothie Ledge should not be moved to the vicinity of Lime Kiln. Up to that point, it is open water which should not be included in a Pilotage District except for the purpose of providing a boarding area. There are adequate land communications on the west side of the Strait. Moving the boarding area into the entrance to Haro Strait may prove as beneficial as the move of the Quebec District seaward boarding station from Father Point to Les Escoumains.

There is no reason why the quarantine procedure could not be carried out at that point and the small percentage of the overall pilotage traffic that calls at Victoria and Esquimalt should not be a serious obstacle. For vessels arriving at, or departing from, Esquimalt or Victoria *via* Canadian internal waters in the Gulf of Georgia, either port would be the point of origin or destination of pilotage trips while, for those sailing from Esquimalt or Victoria directly to sea, or vice versa, it would be a simple case of port pilotage with boarding facilities provided by private vessels, if necessary.

This proposal would have the substantial advantage of solving the problem of boarding vessels which are trading between a Puget Sound port and the Canadian internal waters of the Gulf of Georgia. It would end the practical necessity for American and Canadian pilots to board and disembark outside their District in these instances, thereby resulting in a substantial saving in pilots' time and reducing the aggregate cost to shipping.

This seems to be another situation that has been allowed to exist mostly for historical reasons. The situation was not reassessed when the pattern of navigation changed and when land communications improved. The result is the awkward situation that prevails today.

RECOMMENDATION No. 3

Three Separate Pilotage Districts to Be Established within the Limits of the Existing District with the Object of Providing More Economical and Efficient Service to Shipping and Enhancing the Professional Competency of the Pilots

The British Columbia Pilotage District is unlike any other District in Canada and is most unusual when considered in the light of the general principles that govern pilotage organization. In this accepted sense, pilotage can be considered to conform to the organizational principles of a Pilotage District only within the Gulf of Georgia where most of the traffic occurs. Throughout the remainder of the District, services are provided at additional cost by pilots who only occasionally perform them and who, therefore, can not be expected to acquire and maintain the *expertise* which only up-to-date local knowledge and constant experience provide and which their licence purports they possess. Misrepresentation is involved when a Pilotage Authority assigns pilots automatically through a roster system on the ground that they all hold an unlimited licence because there can be no doubt that it is not feasible for them to be local experts at every port and place throughout the whole extent of the District (vide pp. 61, 73-74). The gravity of this situation is compounded when pilotage is made compulsory, directly or indirectly.

As previously stated (Part I, p. 477):

"The establishment of a large District suggests either that navigation within its limits offers few serious difficulties or, if this is not the case, that its pilots obtain only general qualifications because, for practical reasons, it is not feasible to train the specialists the term "pilot" essentially connotes."

The vast extent of the British Columbia District can be compared with only one other area, i.e., Queensland's coastal pilotage inside the Great Barrier Reef which extends for about 1,250 miles at distances from the mainland ranging from 10 to 150 miles. But the comparison ends there. In Australia, pilotage consists mainly of navigating the channels inside the Reef which resembles, to a certain extent, navigating Canadian west coast waters through the inside passage. If this were the only pilotage requirement, there would be little objection to an extended District because the same route would always be used and actual experience of the whole area would readily be gained. This, however, is not the case in the British Columbia District. Although the distance between the south and north international boundary lines is about 600 miles, according to the pilots, the District, for navigation and pilotage purposes, covers some 11,000 miles along the coast through various rivers, channels, bays and inlets. Pilots are required to navigate vessels over a great number of different routes to bring ships to ports situated at various points along the coast and often far inland at the head of a long inlet, e.g., Port Alberni, Tahsis, Port Alice, Ocean Falls, Kitimat and Stewart. As the Northern Region develops, new ports become established, e.g., in 1967, Tasu Harbour in Tasu Sound on the west coast of the Queen Charlotte Islands, and Gold River in Nootka Sound on the west coast of Vancouver Island. The number of such ports and the relatively few assignments to them plus the large number of pilots required to meet the overall demand make it impossible for an individual pilot assigned through a normal tour de rôle to become thoroughly conversant with local conditions at all these ports or to acquire the necessary competence and, even less, to maintain his knowledge and competence by experience.

The solution lies in reorganizing the whole pilotage service to ensure that every pilot assigned to every vessel is truly expert in the assignment given him by the Pilotage Authority. To achieve this, licences must be limited as to territory (Part I, pp. 261-262) and the tour de rôle system applied only to pilots qualified for each given assignment.

In an ideal situation two conditions would be met:

- (a) All Pilotage Districts would be small enough for each of their pilots to acquire and maintain local *expertise*. It follows that the greater the problems the smaller the District should be.
- (b) The maximum time involved in any assignment under normal conditions would not require unusual working hours. If this condition could not be met, the pilotage area should be divided into

separate, contiguous Districts and pilotage performed by different groups of pilots (vide General Recommendation 8, Part I, pp. 477-479).

In practice, it is often impossible to apply these criteria literally. The main governing factors are the importance of the pilotage requirement and economics. It should be remembered, however, that the pilots' time is valuable and should never be wasted unnecessarily. The constant wastage of their time is detrimental to their competency because it separates their assignments and thus decreases their opportunities to maintain and improve their qualifications by experience. Every effort should be made to improve the pilots' working conditions and create the best possible environment for them to provide their services. In particular, extensive travelling and unduly long hours of duty should be avoided.

Ideally, there would be a separate District for each distinct pilotage service (as is now the case on the Atlantic coast) and a series of contiguous Districts along the continuous pilotage route of the inside passage, e.g., the St. Lawrence Seaway route. For practical reasons, however, it may be necessary to accept less. Furthermore, since most of the governing factors are essentially variable, the organization should be sufficiently flexible to permit alterations as required.

The creation of the Northern District is one recommendation of the 1928 Morrison Commission that was not implemented (p. 20). The experience of the intervening years—particularly the notable increase in traffic—has proved that without this change it is increasingly difficult to organize the whole District and provide efficient service in the north.

Where west coast waters should be divided for the purpose of creating Pilotage Districts, how many of these there should be, and how each of them should be organized, must be carefully studied in the light of the foregoing criteria as well as demands for service and the nature of these demands, as they may vary from time to time. This Commission is not in possession of the statistical data or of all the pertinent information required to draw up a final, detailed plan of organization, but the evidence furnished at its hearings and the additional information since acquired (filed as Exhibits) strongly support its conclusions that drastic changes are imperative to meet existing conditions and future developments. The first step in these main guidelines would be for the Central Authority, or the Authority charged with reorganization, to obtain the exact data needed to determine the required details.

For organizational purposes, it is considered that the waters off the west coast of British Columbia should be divided into three zones:

- (a) the Gulf of Georgia, hereafter called the Gulf of Georgia District;
- (b) the inside passage north of the Gulf of Georgia including all its rivers, channels, bays, inlets and ports, hereafter called the B.C. Northern District;

- (c) all the ports where only port pilotage is required, i.e., where entry is from, and exit to, the high seas or other open waters, hereafter called the Vancouver Island West Coast District.

Gulf of Georgia District

The table on page 121 (an analysis of pilotage in November and December 1962) shows that pilotage in the Gulf accounted for 86.7% of all District assignments, 75.4% performed completely within the Gulf and only 11.3% between the Gulf and the Northern Region.

Therefore, it is considered that the Gulf of Georgia, with all its channels, inlets and ports should form a separate District with sufficient pilots to meet its requirements. There will be substantially fewer pilots than the present establishment because they will be relieved of all time-consuming northern assignments as well as boarding or disembarking in Puget Sound or elsewhere outside the District, provided the Commission's recommendation is approved to reactivate the Sand Heads boarding station and move the Brothie Ledge station to the entrance to Haro Strait. Travelling time may be further curtailed if the despatching rules are altered to make it a rule that pilots return to their home station on a return assignment. In order to prevent a long period of waiting for a return assignment, the pilots who belong to another station should be given precedence on the tour de rôle to enable them to return to their station as soon as possible after they have had sufficient time for rest. In other words, the tour de rôle should be designed to work on a round trip basis, i.e., on the basis of two assignments, out and in. Travelling should be resorted to only when an abnormal number of pilots have gathered at a boarding station or boarding point, or when a shortage must be met by pilots from other stations in the District.

The southern limit of the District should be the Canada/United States boundary line from the mainland at the 49th parallel to the entrance to Haro Strait where the new pilot boarding station should be located (vide B.C. Recommendation 2) including the harbours of Victoria and Esquimalt and their approaches. Furthermore, as recommended in Recommendation 2, an international agreement should be reached to extend the territorial competency of pilots (and hence of the Pilotage Authority over its pilots) beyond the Canadian/American boundary line between the Haro Strait boarding station and the 49th parallel. No part of Juan de Fuca Strait, except the approaches to Esquimalt Harbour and Victoria Harbour, should form part of the District. In the north, the limit should be located in the neighborhood of the 50th parallel at a point where a suitable boarding area for the changeover of pilots could be established. At the present time, it would appear that the entrance to Discovery Passage, probably at Duncan Bay, would be the best choice. However, there are many factors that enter into the actual determination of a boarding area which it would be the duty of the Central Authority and of the District Authority to analyse and assess. According to the evi-

dence received, the route to the north is through Discovery Passage and there appears to be no pilotage traffic using adjacent channels. As the region northeast of the Strait of Georgia develops and vessels employing pilots use other channels, different arrangements may have to be made.

It is considered that, although much of the Gulf of Georgia is open water, it all should be included in the District because of the volume of maritime traffic crisscrossing in many directions. As seen earlier, there is the ever-present danger created by tugs (vide pp. 37-38) and fishing vessels (vide p. 39).

A District of this kind extending from the proposed boarding station in Haro Strait up to Duncan Bay would involve a maximum pilotage route of some 145 miles to which should be added some 15 miles when a vessel is bound to or from Esquimalt or Victoria. It is realized that length alone is not fully indicative of the difficulties of a pilotage assignment, including the pilots' workload, for when vessels transit very confined waters in certain channels and inlets they must do so at reduced speed. On the other hand, it will be the exception rather than the rule for a vessel to transit the whole Gulf of Georgia without calling at a port *en route*, e.g., it was stated in evidence that 90% of the Puget Sound traffic is with Vancouver. For exceptional cases, it would be the Pilotage Authority's responsibility to provide for a changeover of pilots at the most convenient place *en route*.

Vancouver Island West Coast District

The third zone, i.e., where only port pilotage is required, comprises the whole west side of Vancouver Island from Race Rocks up to the entrance to Queen Charlotte Strait, the west side of all the islands bordering Queen Charlotte Sound and Hecate Strait and, finally, the whole coast of the Queen Charlotte Islands. The main ports in this area are Port Alberni, Toquart Bay, Head Bay, Tahsis, Gold River, Zeballos and Port Alice on the west coast of Vancouver Island; Jedway and Tasu, on the east and west coasts of Moresby Island respectively.

There is no valid reason for including in pilotage waters the Canadian internal waters of Juan de Fuca Strait, or the territorial sea bordering the west coast of Vancouver Island and the Queen Charlotte Islands, or the waters of Queen Charlotte Sound and Hecate Strait, because all are open waters which present no particular navigational problems. From the pilots' own evidence, this is true even when negotiating Scott Channel at the north-west end of Vancouver Island. Since no expert knowledge is required to navigate these waters, there is no need for pilotage services, and, therefore, these waters should not be included in a Pilotage District.

It is considered that in this zone, pilotage should be organized on a port basis comprising the confined waters of each port and its approaches, i.e., the channels and inlets leading to it. The ideal situation would be to establish a separate District for each of these ports, each provided with its own pilots

with territorial competency limited to the trip to and from open water. However, the relative importance of these ports and the limited demand for pilotage service for them preclude implementing such an ideal solution and alternatives must be found. (Vide General Recommendation 8, Part I, pp. 478 and 479).

It is considered that the "attachment" (vide General Recommendation 8, Part I, p. 479) of any of these ports to the proposed Gulf of Georgia District is not warranted. The many tasks and responsibilities that will devolve upon the Gulf District Authority will preclude giving to such attached ports the necessary time and attention for regulation-making, licensing and the accompanying surveillance and reappraisal duties. The only other District to which they might be attached would be the one the Commission proposes for the north part of the inside passage and its connecting channels. At present, since there is no such port in the vicinity of the proposed Northern District and most of these ports are located on the west side of Vancouver Island, it is considered that such attachment is not indicated at the present time.

The solution lies in the establishment of a separate District of the merger type (vide General Recommendation 8, Part I, p. 478). Ideally, such a District should comprise only ports in the same geographical area and relatively close together. This would mean that this zone should comprise three separate Districts, one for the ports on the west side of Vancouver Island, a second for the ports in the Queen Charlotte Islands, and a third for the ports on the west side of the islands bordering Hecate Strait and Queen Charlotte Sound. It is considered that there are enough important ports on the west coast of Vancouver Island to merge them into one separate District. However, the present level of development in the other two regions precludes a District organization there, for the time being. Until future developments in these two regions warrant a change of organization, the isolated pilotage operations in the Queen Charlotte Islands should form part of, or be attached to, the proposed Vancouver Island West Coast District.

The decision whether the Pilotage Authority should consist of a three-man board or only a single member should be taken by the Central Authority after weighing all the pertinent factors (vide Part I, p. 511).

Whether the pilots' licences should be limited to one port, or extended to a number of ports, is a question that should be determined by appraising such factors as the navigational difficulty of each pilotage trip, the availability of competent pilots, the adequacy of transportation between ports or groups of ports, and whether there is sufficient financial incentive to attract competent pilots. Such an incentive might well be additional employment with the commercial enterprise operating the port, or with the Government as in Churchill.

B.C. Northern District

The inside passage from Duncan Bay up to Pearse Canal is a pilotage route extending over approximately 450 miles and, therefore, in theory, should be divided into a series of two or three separate Pilotage Districts. This would be further warranted because of the extensive pilotage routes through the adjacent inlets, passages and channels, leading to the various ports *en route* with which the pilots must have intimate and up-to-date knowledge. This ideal situation might be achieved in the future but at the present time it would result in unnecessary overorganization since the pilotage requirements in that area are relatively limited. Therefore, it is considered that only one Pilotage District should be established for this area. It should comprise the whole inside passage and its connected channels, passages, inlets and ports *en route* to include all the confined waters of the area except those sounds and inlets facing the open waters of Hecate Strait and Queen Charlotte Sound.

As stated earlier, it is not too difficult to acquire and maintain the necessary expert knowledge for transiting the full length of the inside passage because the same route is always followed. However, its very length precludes only one pilot serving the whole route. The approach channels to the small number of ports and the ports themselves that the pilots must be qualified to service do not present serious navigational difficulties.

As far as the pilots' competency is concerned, the Northern District should be divided, for the time being, into two zones:

- (a) Zone I, extending from the southern limit of the proposed District i.e., from the entrance to Discovery Passage as far as the northern end of Queen Charlotte Strait where a boarding area should be provided for the changeover of pilots for vessels proceeding through the inside passage, or arriving from sea bound for the inside passage either south or north, or bound to sea from the inside passage. *En route*, the pilots in this zone would have to serve Broughton and Beaver Cove, and possibly Duncan Bay, if it is not included in the Strait of Georgia District.
- (b) Zone II, extending from the Queen Charlotte Strait boarding area up to the northern limit of the District. At present the pilots in this zone would have to serve Ocean Falls, Kitimat and the four ports in the Prince Rupert area, i.e., Port Simpson, Tuck Inlet, Porpoise Harbour and Prince Rupert. Changeover points should be created wherever possible and to the extent they are warranted economically in order to obviate the necessity of despatching two pilots on such extensive assignments. Vessels in transit or from Alaska should be required to embark or disembark their pilots at the Triple Island boarding station or in the open waters of Chatham Sound using the existing pilot vessel service operated by D.O.T.

There remains the problem of a boarding station for vessels proceeding to and from Kitimat through the open waters of Queen Charlotte Sound off McInnes Island. If the traffic warrants, such a station should be created in the neighborhood of McInnes Island or Laredo Sound. One possible alternative would be to create a boarding station in Milbanke Sound where it could also serve as a changeover point for vessels transiting the inside passage. This would require a detour of some 30 to 40 miles for the Kitimat traffic but, on the other hand, these vessels would no longer be obliged to go out of their way to the Cape Beale boarding area which, in this event, should be discontinued except for strictly local requirements. This solution would also have the advantage of sparing the pilots much idle time on board travelling to or from the Cape Beale station and the considerable cost involved. Another possibility would be to make use of the proposed Queen Charlotte Strait boarding station.

This Commission is not convinced that it is impractical to establish boarding stations and changeover points in the Northern Region. From the evidence, it is obvious that the main objections are economics and the pilots' concern about being stranded, even for a relatively short time, in the undeveloped Northern Region. The fact that few land communications exist should not be an insuperable obstacle. There will always be some vessels in the area and normally the pilots can go back to the northern base while performing a return assignment. When, on occasion, the demand is greater at one end of the Region, it will be comparatively easy for the Pilotage Authority to make the necessary arrangements with a vessel to carry one or more pilots as passengers. In case of extreme urgency, transportation can be arranged to the nearest base by aircraft or other means. The cost thereby incurred should form part of the operating cost of the District.

As for establishing boarding stations, it is a common practice the world over to have floating boarding stations (vessels) even in the exposed open waters at the entrance to harbours. This is the case, for instance, in New York Harbour and all the main Netherlands and West German ports along the North Sea, (vide Part I, p. 822). Furthermore, modern technology makes it possible for pilots on land to guide vessels from open water into sheltered waters using radar and other electronic devices. When a pilot vessel can not come alongside on account of rough seas, the "follow me" procedure can be adopted until the pilot can embark, as is often done at the Triple Island boarding station. This procedure is now facilitated because the pilot aboard the pilot vessel can give the necessary instructions by radio. Therefore, it is considered that boarding stations can be established in most areas, the governing factors being practicability and economics.

The establishment of suitable boarding areas near the normal Ports of Entry in the Northern District would also enable its Pilotage Authority to prevent a serious waste of pilots' time by not allowing them to board and disembark in Oregon or Washington State ports.

RECOMMENDATION No. 4

Pilotage in the Proposed Gulf of Georgia and B.C. Northern Districts to Be Classified as a Public Service; Pilotage in the Other Area, the Proposed Vancouver Island West Coast District, to Be Classified as a Private Service

In General Recommendation 17 the Commission recommended that the Central Authority be required to classify the various pilotage services in each District, or part thereof, according to their importance to the national interest, and listed the proposed classifications and governing criteria (vide Part I, pp. 507 and 509).

From the evidence submitted and a study of the B.C. Pilotage District records, the Commission considers that, in the present circumstances, pilotage on the whole of the west coast can not be classified as an "essential public service". There is no likelihood that any maritime disaster anywhere in west coast waters could seriously affect the overall national interest or that it could cause a significant disruption of maritime traffic.

On the other hand, pilotage should be classified as a "public service" in most of the present B.C. District because an adequate, efficient pilotage service is in the interest of the state. However, under existing circumstances, in some areas, pilotage should be considered merely a private service with all the ensuing consequences.

Pilotage should be classified as a "public service" in the proposed Gulf of Georgia District because maritime traffic there is heavy and the safety of navigation could be seriously affected without a first-class service. Most of the maritime activity on the B.C. coast is in this area and the public in general would suffer if the Crown did not take reasonable steps to assist vessels to make speedy, safe transits, to manoeuvre in harbour and berth and unberth without undue delay.

The same classification should apply to the Northern District because its main feature, the northern part of the inside passage, is a shipping route of prime importance, not only to the west coast but to Canada as a whole. In the circumstances, it is considered that its safety should be enhanced by all reasonable means. Vessels should be encouraged to make full use of its sheltered waters, *inter alia*, by the availability of fully qualified, experienced pilots who by their local knowledge save time and enhance safety both for the vessels they conduct and other traffic. As long as the few pilotage services provided in connecting inlets and passages for the inland ports in the District remain an integral part of the pilotage service viewed as a whole, they should be included in the same classification, even though the ports served may only concern a private interest. The safety of navigation on the main route should not be endangered by traffic going and coming from these connecting routes. However, the situation should be reviewed when and where it becomes possible and practicable to provide any of these secondary routes

with pilot changeover points where they intersect the main route. The classification "private service" will then be indicated for pilotage on such connecting routes if the public interest is not directly involved.

For the various existing port services in the proposed Vancouver Island West Coast District, the classification should be "private service", except possibly for Port Alberni and its approaches. The other existing ports merely serve local private interests, generally a single commercial organization which also owns the berthing facilities.

The main consequences of such a classification are:

- (a) Compulsory pilotage will not apply automatically to any of the proposed Districts and in no circumstances will it apply to an area where the service is classified as private. Elsewhere, it should be made to apply only through a specific Pilotage Order and then only to the extent warranted by local circumstances and public interest (vide Part I, pp. 532 and 533, General Recommendation 22, for criteria and procedure).
- (b) Services classified as private must be financially self-supporting and will not be entitled to benefit from the proposed Central Pilotage Equalization Trust Fund. (Vide General Recommendation 21, Part I, p. 524). If there is to be a pilotage service it should be the responsibility of the private interests in the port to attract pilot candidates who meet the Pilotage Authority's competency requirements and to retain them when they are licensed.
- (c) The Pilotage Authorities of the proposed Gulf of Georgia and B.C. Northern Districts will be required to operate the service but the Pilotage Authority of the Vancouver Island West Coast District will have to limit its activities to regulation-making and licensing (vide Part I, General Recommendation 14, pp. 495 and ff.).
- (d) The status of the pilots may be affected. Classification as a private service will preclude its pilots from becoming either employees or *de facto* employees of the Crown, because neither the Pilotage Authority nor any other agent of the Crown should assume the responsibility of providing a service so classified. However, if classified as a public service, the only permissible status of the pilots should be Crown employees or *de facto* employees (vide Part I, General Recommendation 14, pp. 495 and ff.).

While the status of Crown employees is not as imperative here as when the service is classified as essential (vide General Recommendation 24, Part I, pp. 545 and ff.), it appears to be indicated and even necessary during the long period of reorganization and adjustment the implementation of these Recommendations will require. It is to be expected that the pilots will probably resist, as they have done in the past, any change that will, or might possibly, affect their earnings. Therefore, until reorganization is complete

there should be no direct relationship between District revenues and the pilots' earnings. While on one hand it will facilitate the task of those responsible for reorganization, on the other hand, it would be the simplest and most equitable way to protect the pilots during that period. When the reorganization is complete, it is believed that it would be in the best interests of the pilots of the proposed Gulf of Georgia District and the B.C. Northern District to retain this status, provided the Crown agrees to accept the financial responsibility implied (as it did in the case of the Sydney pilots).

The record shows no requirement for imposing compulsory pilotage in the present B.C. District. From 1920 to 1928 anyone could act as pilot, provided he could find a ship to employ him. Competition was keen and one may surmise that the quality of the service was adversely affected. However, a poor safety record was not the reason the Pilotage District was re-established in 1928. The main reason was that the service was not available to non-regular traders because the pilots first provided their services to their regular customers.

One of the recommendations of the Morrison Commission was the re-establishment of the District but that Commission recommended against the establishment of compulsory pilotage or the compulsory payment of dues. Significantly, none of the arguments that had been advanced in favour of a compulsory system concerned safety of navigation.

From 1928 to 1948 the service was provided on a non-compulsory basis and when the compulsory payment system was purportedly established in 1948, safety of navigation was not even considered. (Vide p. 48).

All the parties directly concerned, i.e., the pilots and local shipping interests, have been dealing unofficially with exemptions without consideration for the safety of navigation. Although the various unofficial exemptions so made (pp. 52-58) applied to vessels of any category under certain governing circumstances, it does not appear that the safety record of the west coast has suffered thereby and none of the parties who appeared before the Commission (not even the pilots) ever suggested that these arrangements should no longer be implemented. Despite the fact that Crown Zellerbach Canada Ltd. and the Aluminum Co. of Canada Ltd. urged abolishing the compulsory payment system, and although the Vancouver Chamber of Shipping recommended the exemption of all regular traders as a group, no witnesses, including the pilots, objected on the ground of safety of navigation.

RECOMMENDATION No. 5

**The Principal Components of Pilotage Rates to Be Based on
Maximum Gross Tonnage**

As stated in Chapter 6 of Part I of the Report, rate-fixing is essentially a local matter because local factors are paramount. The rates are the prices charged for the services the pilots of a given District are required to render and, since these services differ from District to District, both the rate structure and the amounts involved are bound to vary.

Because of the various kinds of service rendered in a coastal District where pilotage is not restricted to ports and their approaches, the required tariff must consist of a combination of rates for voyages and port services. As now applied in the B.C. District these are incompatible and inequitable.

In a fully controlled pilotage service the main consideration in fixing the rates is to provide a structure which, in the particular circumstances of a given District, distributes equitably the total cost of the service, or that part thereof which is to be borne by its users.

At present, throughout the B.C. District (with the possible exception of the Second Narrows in Vancouver) there are no local factors, such as a narrow, winding channel or limited depth of water, which seriously increases the difficulty of navigation in relation to the length or draught of a vessel. This situation greatly facilitates and simplifies the rate-fixing process because, in addition to the nature and duration of assignments, the only other ingredient is to establish a tariff which distributes the total cost of the service *pari passu* among all the vessels involved. For the main items, the simplest possible rate structure can be adopted, i.e., one based solely on tonnage—the readily available comprehensive ship unit. In this regard, for the reasons given in Part I, C.6, especially pp. 180 and 181, maximum gross tonnage should be used.

Taking into consideration the nature of pilotage voyages in the proposed Gulf of Georgia and Northern B.C. Districts and the diversity of possible trips, it is considered that an adequate structure for the voyage charge (vide pp. 148-150) should be based on the following components:

- (a) a substantial mileage charge based on maximum gross tonnage;
- (b) a berthing charge, when applicable, also based on maximum gross tonnage, i.e., one for unberthing at the port of departure and one for berthing at the port of destination;
- (c) a pilot vessel charge, whenever use is made of that service, which normally should be on a flat rate because of the relatively small amount involved. However, when this amount is substantial, as is now the case at Prince Rupert, consideration should be given to distributing such costs *pro rata* among the users.

The present overall rate structure is far from equitable. Since the flat rate mileage charge—a most important component of the basic charge—is invariable, the main objective of rate-fixing is not met, i.e., to share pilotage costs *pari passu* among the vessels concerned. Although the “port charge” varies with each ship’s tonnage and draught, it does not correct the mileage discrimination. It is not related to the value of the services rendered at a port but is merely a component of the voyage charge, whose main function is to vary the aggregate voyage charge according to a ship’s size and loaded state. However, this aim is not attained on account of the random, and at times arbitrary, manner in which the charge is applied (vide pp. 148-150). Such a structure is a holdover from the distant past when pilotage on the B.C. Coast was organized on a port basis, generally with a separate District for each main port. Then the port charge was separate from the voyage charge; it was the price for pilotage services rendered at a given port and was never applied when pilotage services were not rendered within a port. Compulsory payment applied only to the port charge. Dues for navigation outside a port—whether to sea or to another port—were payable only if a pilot had been hired (vide Yale and New Westminster By-law 1894 analyzed on p. 253).

It is considered that, in view of the various types of pilotage voyages that occur in the present B.C. District, and will be met in the proposed Gulf of Georgia District and the B.C. Northern District, there should be separate rates for pilotage voyages, or parts of voyages, outside ports, and for services rendered within ports, and that both should vary according to the size of the vessels to which such services are rendered.

With the proposed new rate structure, the cost of the service would be equitably shared among the users and the cost to each vessel would vary in relation to the nature of the pilotage services or accessory services rendered. For instance, a vessel merely transiting the District would be called upon to pay the applicable mileage charge, plus two pilot vessel charges for embarking and disembarking a pilot at the District limit boarding stations. For other voyages within the District, a berthing charge would replace one or both pilot vessel charges whenever the pilot was required to berth or unberth the ship at the port of destination or the port of departure.

The berthing or unberthing charge would not apply when, for reasons over which a vessel had no control, it was obliged to accept temporarily a berth which was not its berth of destination. Such an event is comparable to going to an anchorage or passing time by manoeuvring at low speed. All such occurrences should be considered normal pilotage hazards for which there is no extra charge.

Distance or mileage for tariff purposes should terminate when a vessel passes the seaward harbour limits.

As stated on pages 154 and 155, the present additional charges for the second pilot and travelling expenses as well as the quarantine charge should be eliminated.

In the proposed Gulf of Georgia District, the additional charge for transiting the Second Narrows should be retained. If such a charge is to remain comparatively small, a flat rate is adequate. However, a scale based on tonnage (as now adopted for movages) appears preferable because it takes account both of the varying dimensions of vessels and any resultant pilotage problems.

The same process used to compute the voyage charge should be followed for other services. Even when a charge is based on the time factor (p. 154), the charge per hour for a given vessel should depend on its tonnage. It is believed, however, that this process should not be followed for indemnity charges, but that they should be either fixed penal charges or true indemnities based on the average value of the pilots' time. Therefore, both would take the form of fixed amounts determined in the regulations.

The movage charge as such should be discontinued and replaced by the berthing charge, one such charge only being made when the movement is between a berth and anchorage while two such charges would apply when the movement is between two wharves or piers.

For vessels of more than one component, special methods should be devised to cover each type of such composite units of navigation. For instance, the 50% surcharge for a ship being navigated as a dead ship appears adequate; in this case, only the tonnage of the ship being towed should enter into the computation of the charge. In fixing the rates, care should be taken to avoid any possible conflict between pecuniary and safety considerations. Those concerned should never be induced to sacrifice safety in order to pay smaller pilotage dues, e.g., to employ fewer tugs than a movage requires. Suitable arbitrary tonnage equivalents should be devised in the regulations for barges and other components of navigation units.

With regard to the proposed Vancouver Island West Coast District, because only port pilotage is met and because it is a merger type District, a distinct rate structure will have to be devised to meet the particular rate requirements of each of the ports in the District. On account of the *situs* of most of these ports at the head of a long inlet, it is considered that the distinction between the services rendered within and without the port proper should be retained and the method suggested above should apply *mutatis mutandis*. The main difference would be a further simplification in the voyage charge in that, since the distance of the voyage to a given port is constant, i.e., the transiting of its approaches, the price should not be made on a mile basis but on a transit basis, variable solely with regard to the ship's tonnage.

Where tonnage is the determining factor, a minimum should be set in the regulations for the purpose of calculating each charge so that a pilot's time is not wasted on small vessels which have little need for pilots and normally would not take one. If they do, however, they should be required to pay a basic minimum charge. For instance, the minimum tonnage might be

fixed at 2,000 gross tons or some other amount if, after due consideration of all the pertinent data and circumstances, the suggested minimum is felt to be either too high or too low.

While there are an unlimited number of ways to apply the tonnage factor, it is believed that the method adopted should be as simple as possible. The simplest ways to express the rates are:

- (a) a rate which varies according to a scale;
- (b) an invariable price for a fixed unit expressed in the form of a mathematical factor.

The first method is indicated when the resulting charge is small; the minimum charge is then part of the scale. It is the method now followed for the movage charge (p. 155). It is considered that it could be retained for the proposed berthing charge.

The price-unit system is indicated when there is no uniformity in the actual services that are of the same nature. In such a case, the rate should be fixed on the basis of a practical common denominator, the price unit. For voyages whose only essential difference is distance run, the mile is the simplest and most practical common denominator. To avoid any possible ambiguity, the nautical mile should be used and clearly shown in the regulations. Therefore, the voyage rate would take the form of an invariable mileage price for one mile per gross ton, in other words a mile-ton price unit. The actual charge for a given vessel for a given run could then be easily ascertained by multiplying the vessel's maximum gross tonnage by the price so fixed and the result by the number of miles piloted. This mile-ton factor will, perforce, be very small but this should present no difficulty of application now that calculating machines are available.

Chapter E

APPENDICES

APPENDIX A

Map—British Columbia Pilotage District and Vancouver Harbour.

APPENDIX B

- (1) Graph—1948–1967 Percentage Increase in the Number of Ships Piloted, Number of Times Pilots Employed (“Jobs”), Net Tonnage Piloted, District Gross Earnings, Distribution to Pilots, Establishment of Pilots, and Average “Take Home Pay” per Establishment Pilot.
- (2) Table—1948–1967 Figures and Percentages on which the above Graph is based, together with their Source of Information.

APPENDIX C

- (1) Graph—1956–1967 Total and Average Number of Jobs per Month, Emphasizing *Peaks* and *Lows* as compared to Annual Monthly Average.
- (2) Table—1956–1967 Figures on which the above Graph is based, giving the Total Number of Jobs per Month, Yearly Total, and Monthly Average; Actual Number of Pilots per Month, and Establishment; Average Number of Jobs per Actual Number of Pilots per Month, Yearly Average, and Monthly Average, together with their Source of Information.

APPENDIX D

Shipping Casualties, Accidents and Incidents Involving Pilots:

Table—1956–1961
Table—1962–1967
Summary—1965
Summary—1966

APPENDIX E

Workload of Pilot R. McLeese, showing Daily Hours Piloting, On Detention, At Home Available, On Leave, Travelling, and Away From Home Awaiting Assignment:

Graph—November 1962
Graph—December 1962.
Graph—January 1963.

APPENDIX F

Table—Comparative Analysis of Annual Financial Statement of the B.C. Pilotage District’s Revenues and Expenditures—1962 and 1967.

APPENDIX G

Table—1963, 1964 and 1965 Comparative Table of Annual Financial Statements of Receipts and Disbursements of The Corporation of the British Columbia Coast Pilots.

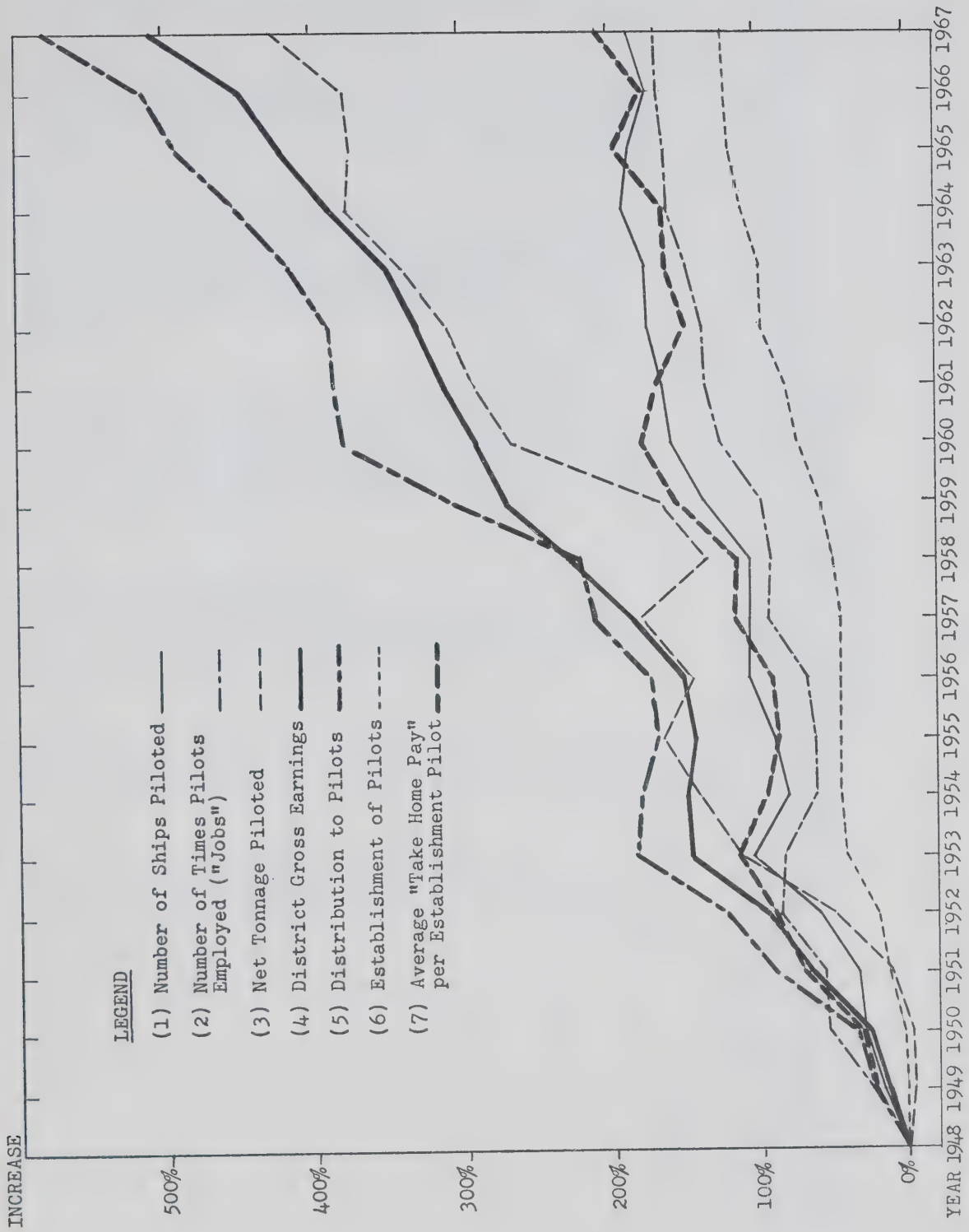
Appendix A

Appendix A to Part One of the Report shows the outline of all existing Pilotage Districts and pilotage areas in Canada.

When the general plan of the Report was drawn up, it was hoped to present detailed maps or charts of each District but it became apparent that they would exceed the reasonable scope of the individual Parts.

Observing that the basic material is already available, reference is invited to the catalogue published by the Canadian Hydrographic Service for detailed information.

PILOTAGE STATISTICS 1948-1967



Appendix B (2)
PILOTAGE STATISTICS 1948-1967

Year	(1) Number of Ships Piloted	(2) Number of Times Pilots Employed ("Jobs")	(3) Net Tonnage Piloted	(4) District Gross Earnings	(5) Distribution to Pilots	(6) Estab- lishment of Pilots	(7) Average "Take Home Pay" per Estab- lish- ment Pilot
1948.....	2,510	3,461	7,886,473	\$ 315,173.07	\$ 190,801.00	33.4	\$ 5,712.60
1949.....	2,944	4,333	7,715,229	363,572.35	237,831.95	34.0	6,995.06
1950.....	3,210	5,385	7,750,099	399,630.38	259,109.10	34.4	7,532.24
1951.....	3,365	5,432	8,838,804	522,748.63	363,207.50	37.3	9,737.47
1952.....	3,993	6,428	11,893,990	617,045.49	424,857.59	40.1	10,594.95
1953.....	5,157	6,357	16,769,914	777,178.51	539,108.79	44.1	12,224.69
1954.....	4,526	5,617	18,974,565	783,589.35	534,992.84	48.0	11,145.68
1955.....	4,754	5,613	20,788,890	765,842.26	513,578.78	48.0	10,699.56
1956.....	5,188	5,779	19,263,243	791,103.36	521,427.20	48.0	10,863.07
1957.....	5,133	6,693	21,983,302	897,778.32	592,400.52	48.0	12,341.68
1958.....	5,153	6,614	18,550,605	1,027,235.45	612,139.37	50.0	12,242.79
1959.....	5,925	6,855	21,070,615	1,167,955.27	770,212.00	53.0	14,532.30
1960.....	6,468	7,782	28,971,088	1,226,137.74	917,553.20	58.0	15,819.88
1961.....	6,629	8,171	30,914,494	1,297,572.34	929,423.81	61.0	15,236.46
1962.....	6,866	8,191	32,217,850	1,355,164.66	934,661.06	66.0	14,161.53
1963.....	6,873	8,569	34,657,721	1,449,628.96	983,365.91	66.0	14,899.48
1964.....	7,303	9,058	37,618,095	1,539,338.46	1,050,247.32	69.8	15,046.52
1965.....	7,147	9,115	37,410,635	1,636,965.47	1,126,331.86	72.6	16,891.62
1966.....	6,885	9,122	37,740,585	1,725,566.90	1,168,983.43	74.0	15,797.07
1967.....	7,137	9,208	41,558,348	1,916,202.99	1,295,852.97	74.0	17,511.53

Percentage Increase

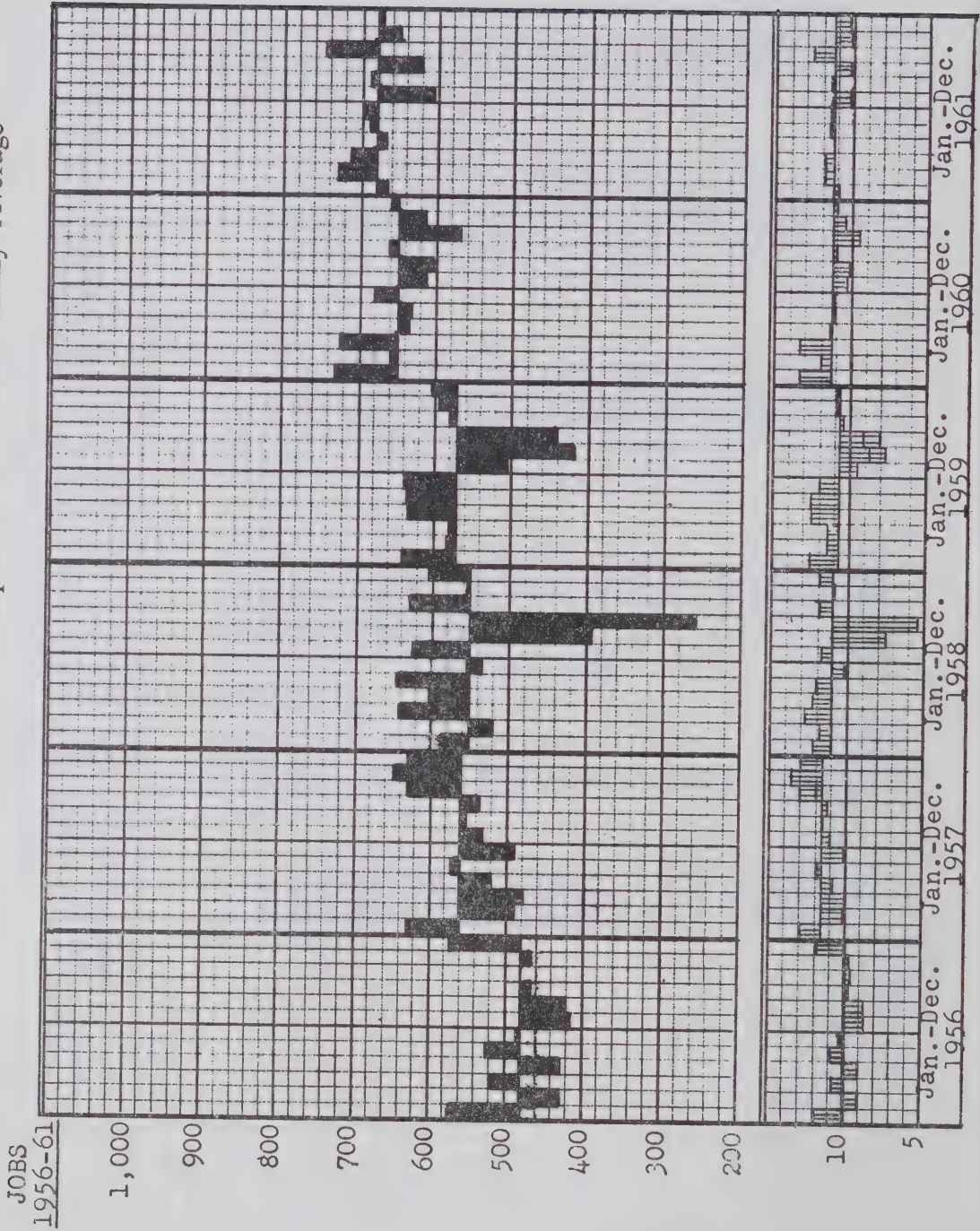
1948.....	0	0	0	0	0	0	0	0	0
1949.....	17.3	25.2	15.4	24.7	1.7	22.5			
1950.....	27.9	55.6	26.8	35.8	2.9	31.9			
1951.....	34.1	57.0	65.9	90.4	11.5	70.5			
1952.....	59.1	85.7	95.8	122.7	19.9	85.5			
1953.....	105.5	83.7	146.6	182.6	31.9	114.0			
1954.....	80.3	62.3	148.6	180.4	43.5	95.1			
1955.....	89.4	62.2	143.0	169.2	43.5	87.3			
1956.....	106.7	67.0	151.0	173.3	43.5	90.2			
1957.....	104.5	93.4	184.9	210.5	43.5	116.0			
1958.....	105.3	91.1	225.9	220.8	49.5	114.3			
1959.....	136.1	98.1	270.6	303.7	58.5	154.4			
1960.....	157.7	124.9	289.0	380.9	73.4	176.9			
1961.....	164.1	136.1	311.7	387.1	82.4	166.7			
1962.....	173.5	136.7	330.0	389.9	97.3	147.9			
1963.....	173.8	147.6	360.0	415.4	97.3	160.8			
1964.....	191.0	161.7	388.4	450.4	108.7	163.4			
1965.....	184.7	163.4	419.4	490.3	117.1	195.7			
1966.....	174.3	163.6	447.5	512.7	121.3	176.5			
1967.....	184.3	166.1	508.0	579.2	121.3	206.5			

SOURCE OF INFORMATION:

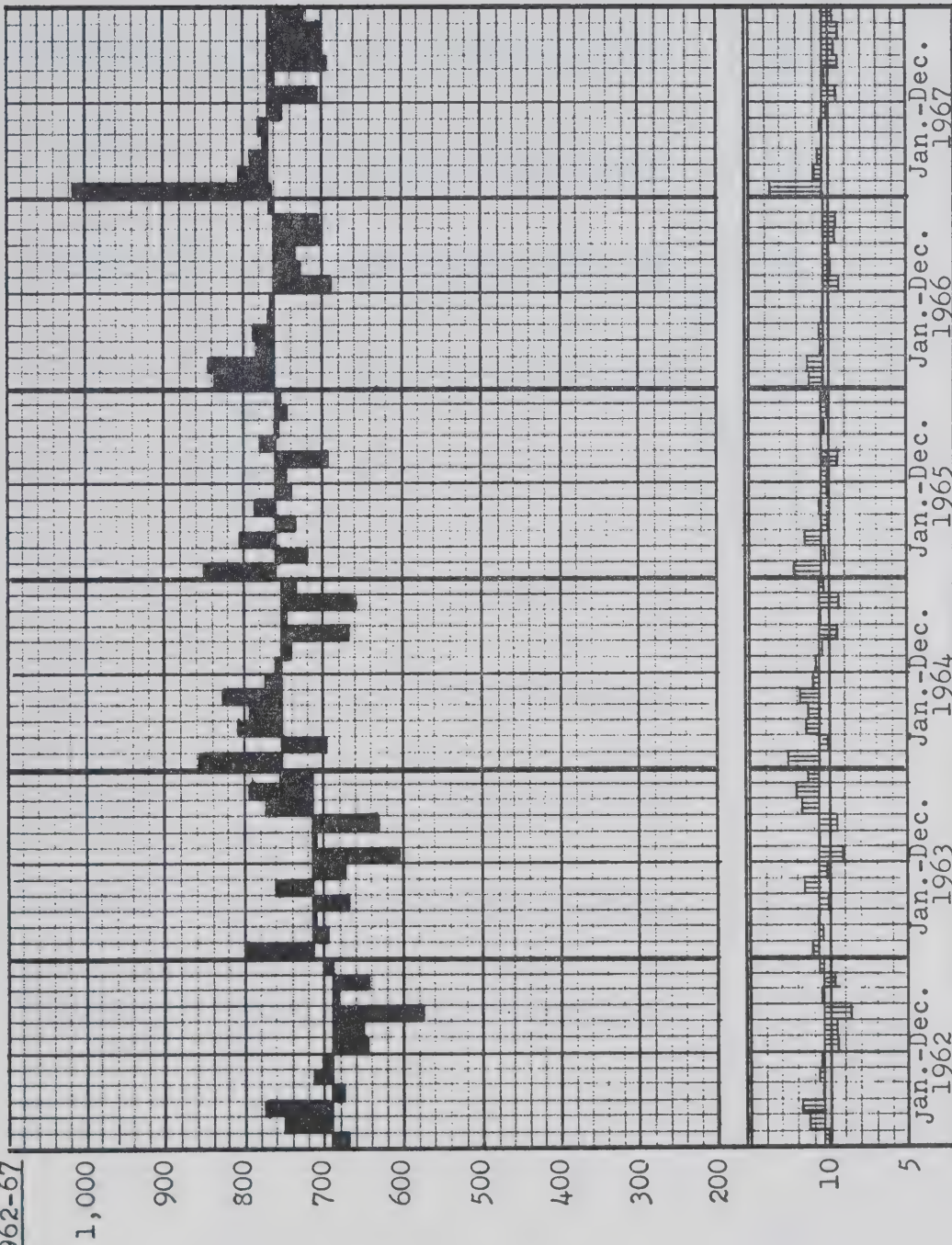
- (1) Ex. 205; vide p. 120.
- (2) Ex. 205; vide pp. 120 and 122.
- (3) Ex. 205; as Gross Tonnage information was not available prior to 1958, Net Tonnage information was used.
- (4) Ex. 205 (1948-1959), Ex. 199 (1960), Ex. 198 (1961), Ex. 197 (1962-1967).
- (5) Ex. 209 (1948-1962), Ex. 197 (1963-1967); in 1948, figures were available for the nine-month period April-December only, so a forced figure was calculated as follows: $9/12 = \$143,100.75$; $1/12 = \$15,900.0833$; $12/12 = \$190,801.00$ as shown above; vide p. 133.
- (6) Vide pp. 123, 124 and 143.
- (7) Vide pp. 133, 143 and 183.

Appendix C (1)

TOTAL AND AVERAGE NUMBER OF JOBS PER MONTH
Emphasizing Peaks and Lows as Compared to Annual Monthly Average



JOB
1962-67



LEGEND: ■ Total Number of Jobs per Month ▨ Monthly Average Number of Jobs per Pilot

Appendix C (2)

NUMBER OF JOBS PER MONTH, YEAR, AND AVERAGE PER PILOT

Month	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
<i>Total Number of Jobs per Month*</i>												
January.....	574	625	587	639	727	664	668	799	856	849	838	1012
February.....	431	489	522	585	661	728	748	695	698	721	843	803
March.....	518	479	641	584	725	716	776	714	806	802	786	788
April.....	431	523	602	634	634	672	678	668	792	736	788	769
May.....	522	569	643	637	633	693	715	759	824	785	766	777
June.....	483	490	533	638	679	698	702	673	769	742	764	750
July.....	415	530	624	504	612	607	646	603	760	744	690	708
August.....	420	555	395	418	605	691	652	712	743	694	732	764
September.....	472	535	278	439	661	622	578	628	669	780	736	694
October.....	466	625	629	579	570	749	685	771	746	759	704	702
November.....	478	648	554	597	615	653	646	794	660	747	704	702
December.....	569	625	606	601	660	678	697	753	735	756	763	727
Yearly Total.....	5,779	6,693	6,614	6,855	7,782	8,171	8,191	8,569	9,058	9,115	9,122	9,208
Monthly Average.....	481.6	557.8	551.2	571.3	648.5	680.9	692.6	714.1	754.8	759.6	760.2	767.3
<i>Actual Number of Pilots per Month**</i>												
January.....	48	48	48	51	55	61	66	66	68	70	74	74
February.....	48	48	48	51	55	61	66	66	70	70	74	74
March.....	48	48	50	51	55	60	66	66	71	70	74	74
April.....	48	48	49	51	56	60	66	66	70	74	74	74
May.....	48	48	53	51	57	60	66	66	70	74	74	74

June.....	47	48	53	53	61	60	67	66	70	74	74	74
July.....	48	48	53	53	60	60	68	66	70	74	74	74
August.....	48	48	53	54	60	60	68	66	70	74	74	74
September.....	48	48	53	54	60	61	67	66	70	74	74	74
October.....	48	48	53	55	60	60	66	66	70	74	74	74
November.....	49	48	51	55	60	64	66	66	70	74	74	74
December.....	48	48	51	55	60	66	66	66	70	74	74	74
Establishment†.....	48	48	50	53	58	61	66	66	69.8	72.6	74	74

Average Number of Jobs per Actual Number of Pilots per Month

January.....	12.0	13.0	12.2	12.5	13.2	10.9	10.1	12.1	12.6	12.1	11.3	13.7
February.....	9.0	10.2	10.9	11.5	12.0	11.9	11.3	10.5	10.0	10.3	11.4	10.9
March.....	10.8	10.0	12.8	11.5	13.2	11.9	11.8	10.8	11.4	11.5	10.6	10.7
April.....	9.0	10.9	12.3	12.4	11.3	11.2	10.3	10.1	11.3	10.0	10.7	10.4
May.....	10.9	11.9	12.1	12.5	11.1	11.6	10.8	11.5	11.8	10.6	10.4	10.5
June.....	10.3	10.2	10.1	12.0	11.1	11.6	10.5	10.2	11.0	10.0	10.3	10.1
July.....	8.7	11.0	11.8	9.5	10.2	10.1	9.5	9.1	10.9	10.1	9.3	9.6
August.....	8.8	11.6	7.5	7.7	10.1	11.5	9.6	10.8	10.6	9.4	9.9	10.3
September.....	9.8	11.2	5.3	8.1	11.0	10.2	8.6	9.5	9.6	10.5	10.0	9.4
October.....	9.7	13.0	11.9	10.5	9.5	12.5	10.4	11.7	10.7	10.3	9.6	9.7
November.....	9.8	13.5	10.9	10.9	10.3	10.2	9.8	12.0	9.4	10.1	9.5	9.5
December.....	11.9	13.0	11.9	10.9	11.0	10.3	10.6	11.4	10.5	10.2	10.3	9.8
Yearly Average†.....	120.4	139.4	132.3	129.3	134.2	133.9	124.1	129.8	129.8	125.6	123.3	124.4
Monthly Average†.....	10.0	11.6	11.0	10.8	11.2	11.2	10.3	10.8	10.8	10.5	10.3	10.4

*Ex. 205 (vide pp. 120 and 122).
**Exs. 209 and 211.
†Vide pp. 123, 124 and 143.
‡Per establishment pilot.

Appendix D

SHIPPING CASUALTIES

	1956	1957	1958	1959	1960	1961
TOTAL SHIPPING CASUALTIES.....	27	21	14	21	24	26
A. Events presumably* happening in the course of navigation:.....	9	9	3	4	7	2
(a) Collision.....	4	6	3	2	1	0
(b) Grounded.....	4	3	0	1	3	0
(c) Struck buoy.....	0	0	0	0	0	1
(d) Struck log.....	0	0	0	0	1	0
(e) Struck submerged log.....	0	0	0	0	1	0
(f) Struck submerged object.....	1	0	0	0	1	0
(g) Touched boom logs.....	0	0	0	0	0	1
(h) Vessel caught in log boom.....	0	0	0	1	0	0
B. Events happening while berthing or unberthing:.....	18	12	11	17	17	24
(a) Collision at pier or wharf.....	1	0	0	0	0	4
(b) Grounded at pier or wharf.....	0	0	1	0	0	1
(c) Touched pier or wharf.....	17	10	10	16	17	18
(d) Touched pier or wharf crane.....	0	1	0	0	0	1
(e) Touched pier or wharf equipment.....	0	1	0	1	0	0

*As the available information did not state the location of the shipping casualties, for the purposes of this table it was merely presumed that all casualties not stated to have occurred at pier or wharf possibly occurred in the course of navigation.

SOURCE OF INFORMATION: Exhibit 1467; vide pp. 87-91.

SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS INVOLVING PILOTS

Appendices

	1962	1963	1964	1965	1966	1967
TOTAL SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS INVOLVING PILOTS	29	16	15	17	9	42
A. Events happening in the course of navigation						
I. Major casualties (with or without loss of life)	4	5	6	4	1	5
(a) Loss or abandonment of ship	0	2	1	2	1	3
(b) Major strandings	0	1	0	1	1	0
(c) Heavy damage to ship (other than above)	0	1	0	1	0	1
II. Minor casualties	3	2	5	1	0	1
(a) Minor strandings	2	2	2	1	0	0
(b) Minor damage to ship	1	0	3	0	0	1
III. Accidents (other than shipping casualties)	1	0	0	0	0	0
IV. Incidents	0	1	0	1	0	1
(a) Touching bottom in channel	0	1	0	0	0	0
(b) Others	0	0	0	1	0	1
B. Events happening while berthing, unberthing, or at port anchorage	25	11	9	13	8	37
I. Major casualties (with or without loss of life)	0	0	0	0	0	0
II. Minor casualties	10	5	3	8	3	18
(a) Minor strandings	0	0	0	0	1	1
(b) Minor damage to ships	10	5	3	8	2	17
(i) Striking pier	8	3	2	5	2	11
(ii) Striking other vessels while berthing or unberthing	1	2	1	1	0	3
(iii) Striking vessels at anchorage	0	0	0	0	0	0
(iv) Others	1	0	0	2	0	3
III. Accidents (other than above)	15	4	6	4	4	14
(a) Damage to pier	15	4	6	3	3	9
(b) Damage to buoys	0	0	0	0	0	4
(c) Others	0	0	0	1	1	1
IV. Incidents	0	2	0	1	1	5
(a) Striking pier	0	0	0	0	0	1
(b) Striking other vessels while berthing or unberthing	0	0	0	0	0	1
(c) Striking vessels at anchorage	0	0	0	0	0	0
(d) Striking buoys	0	2	0	1	1	3
(e) Others	0	0	0	0	0	0

SOURCE OF INFORMATION: Ex. 1467; vide pp. 87-91.

SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS INVOLVING PILOTS DURING THE YEAR 1965

A. EVENTS HAPPENING IN THE COURSE OF NAVIGATION

I. MAJOR CASUALTIES (with or without loss of life)

(a) Loss or abandonment of ship—Nil

(b) Major strandings:

1. April 1—*Olympic Palm* grounded at Orcas Island causing considerable bottom damage. Cause: pilot fell asleep on duty. (Preliminary inquiry—suspended four months) (Pilotage trip from Nanaimo to Brothie Ledge)

(c) Heavy damage to ship (other than above):

1. January 16—*Hoyanger* collided with U.S. Destroyer USS *Whitehurst* in First Narrows, Vancouver Harbour. Cause: during dense fog, *Whitehurst* caught in tide, swung across channel; minor damage to *Hoyanger*, serious damage to *Whitehurst*. (Fact finding; no blame attached to *Hoyanger*)

II. MINOR CASUALTIES

(a) Minor strandings:

1. January 4—*Gerina* grounded in Tsowwin Narrows; vessel freed immediately, damage of very minor nature. Cause: heavy snowstorm.

(b) Minor damage to ship—Nil

III. ACCIDENTS (other than shipping casualties)—Nil

IV. INCIDENTS

(a) Touching bottom in channel—Nil

(b) Others:

1. November 18—*Oriental Argosy* collided with tow of logs West of First Narrows, Vancouver; no damage other than some logs spilled from boom. Cause: poorly lit tow. (No action)

B. EVENTS HAPPENING WHILE BERTHING, UNBERTHING, OR AT PORT ANCHORAGE

I. MAJOR CASUALTIES (with or without loss of life)—Nil

II. MINOR CASUALTIES

(a) Minor strandings—Nil

(b) Minor damage to ships:

(i) Striking pier:

1. February 13—*Suchan* struck pier while berthing at La Pointe Pier, Vancouver, resulting in indentation in one plate. Cause: wind. (Pilot reprimanded for poor tug boat handling)
2. February 25—*Inverewe* struck pier while berthing at La Pointe Pier, Vancouver, resulting in indentation to shell plating and possible crack in stem post. Cause: slow engine response; difficult conditions.
3. June 16—*Villanger* struck corner of quay while berthing at Pier 20B Vancouver, causing minor dent in shell plating. Cause: Wind and tide.
4. June 21—*Theofano Levanos'* accommodation ladder caught on pier while unberthing at Pier 26A Vancouver, causing minor damage to gangway and bulwark in gangway area. Cause: windlass failure.
5. September 23—*Seizan Maru* landed somewhat heavily on corner of quay when berthing at Pier 30A Vancouver resulting in about ten feet of plating indented. Cause: Fog and unexpected strong flood.

(ii) Striking other vessels while berthing or unberthing:

1. September 10—*Panaghia* struck bow of S.S. *King Theseus* at berth 30D when proceeding to berth 30E, Vancouver Harbour, causing very minor damage to bulwarks of both ships. Cause: engine failure.

(iii) Striking vessels at anchorage—Nil

(iv) Others:

1. June 1—*Madison Friendship* landed heavily on bearing dolphin while berthing at Duncan Bay, causing slight indentation to plating. Cause: current and strong tidal eddies. (Pilot reprimanded)
2. July 5—*Canadian Star* landed on solid dolphin at Duncan Bay, causing slight damage to one plate and frame. Cause: current.

III. ACCIDENTS (other than above)

(a) Damage to pier:

1. September 11—*Olympic Pegasus* struck pier while berthing at Pier 26A, Vancouver Harbour. No damage to ship; slight damage to pier planking. Cause: current.
2. November 26—*Jarabella* struck Crofton Lumber wharf. No damage to ship; slight damage to wharf. Cause: pilot error—vessel coming in a little too fast and astern movement canted bow into wharf.
3. December 16—*Benedicte* struck end of IOCO wharf at Port Moody a glancing blow. No damage to ship; damaged end of wharf and pipelines. Cause: forced into shallow water by log booms obstructing dredged channel when leaving Port Moody. Vessel refused to answer her helm. Pilot unable to use anchor.

(b) Damage to buoys—Nil

(c) Others:

1. November 27—*Mareileen* proceeding into Vancouver Harbour collided with sailing yacht *Doxy* off Point Grey Buoy. No damage to vessel and no injuries on yacht although yacht dismasted. Cause: unlighted sailing yacht.

IV. INCIDENTS

(a) Striking pier—Nil

(b) Striking other vessels while berthing or unberthing—Nil

(c) Striking vessels at anchorage—Nil

(d) Striking buoys—Nil

(e) Others:

1. June 1—*Doris* grounded on shoal area berthing stern first at Pier 26A Vancouver Harbour. No damage. Cause: pilot's misjudgment. (Pilot reprimanded for poor judgment in berthing)

SHIPPING CASUALTIES, ACCIDENTS, AND INCIDENTS INVOLVING PILOTS DURING THE YEAR 1966

A. EVENTS HAPPENING IN THE COURSE OF NAVIGATION:

I. MAJOR CASUALTIES (with or without loss of life)

(a) Loss or abandonment of ship—Nil

(b) Major standings

1. August 16—*Rondeggen* struck the bluff at Wearing Point when entering Ocean Falls, and suffered severe bow damage of approximately \$150,000. Cause: failure of the vessel's steering equipment. (Preliminary inquiry conducted.)

(c) Heavy damage to ship (other than above)—Nil

II. MINOR CASUALTIES—Nil

III. ACCIDENTS (other than shipping casualties)—Nil

IV. INCIDENTS—Nil

B. EVENTS HAPPENING WHILE BERTHING, UNBERTHING, OR AT PORT ANCHORAGE:

I. MAJOR CASUALTIES (with or without loss of life)—Nil

II. MINOR CASUALTIES

(a) Minor strandings

1. April 4—*Lefkipos* (an under-powered, thirty-year old vessel) grounded on rocky point between Assembly and A.P.D. wharf at Port Alberni, but came off immediately with minor damage to stem and forefoot. Cause: endeavouring to berth at A.P.D. wharf at Port Alberni.

(b) Minor damage to ships

(i) Striking pier

1. February 28—*Canberra* landed heavily on pier corner of Pier 12D, Vancouver, during berthing, with indentation to two plates of shell and frames set in, but no apparent damage to pier. Cause: pilot error.
2. December 12—*Martha Bakke* landed heavily on corner during berthing at Pier 12B, Vancouver, with slight indentation to plating. Cause: vessel's stern was caught in a back eddy.

(ii) Striking other vessels while berthing or unberthing—Nil

(iii) Striking vessels at anchorage—Nil

(iv) Others—Nil

III. ACCIDENTS (other than above)

(a) Damage to pier

1. February 6—*Katherine* struck pier corner while berthing at Pier 25, Vancouver, causing damage to fender but no apparent damage to ship. Cause: tug error.
2. May 22—*Ritsuyo Maru* set down heavily on scow moored at pulp wharf, Watson Island, during landing and pressure on scow caused considerable damage to wharf but no damage to ship. Cause: current.
3. August 18—*Pacific Princess*' bow cut into wharf at Cowichan between Berths 1 and 2 during berthing. Cause: pilot's negligence in relying on radar to berth vessel. (Preliminary inquiry conducted; pilot severely reprimanded.)

- (b) Damage to buoys—Nil
- (c) Others










1. December 31—*Mekambo's* bow set down by tide leaving Pier 93, Vancouver, causing damage to grain chute. Cause: tide; pilot's error.

IV. INCIDENTS

- (a) Striking pier—Nil
- (b) Striking other vessels while berthing or unberthing—Nil
- (c) Striking vessels at anchorage—Nil
- (d) Striking buoys—Nil
- (e) Others

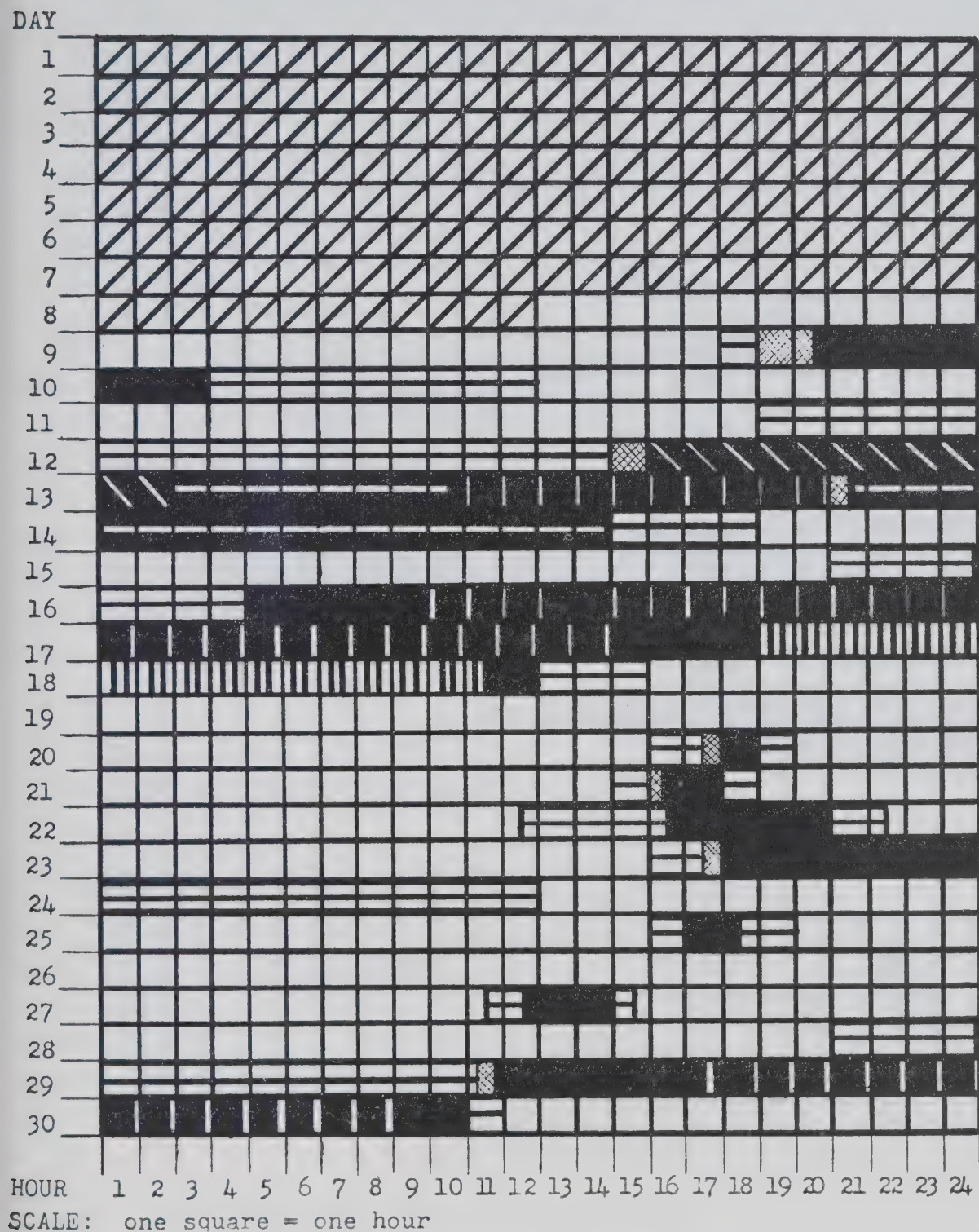
1. April 16—*Virginia Maru*, when turning after leaving Kitimat wharf grounded on sandbar. Vessel pulled off with aid of tug and no damage found after survey. Cause: evasive action to avoid collision with unlighted fishboat.

LEGEND:

-  Piloting, single assignment
-  Piloting, two-pilot
assignment
-  Detention, awaiting departure after "ordered time"
-  Detention on board ship
en route
-  Detention at outport, awaiting ship at agent's request
-  At home, available
-  On leave
-  Travelling, including waiting time before "ordered time"
-  Away from home awaiting
assignment

Appendix E

WORKLOAD OF PILOT R. McLEESE*—NOVEMBER 1962



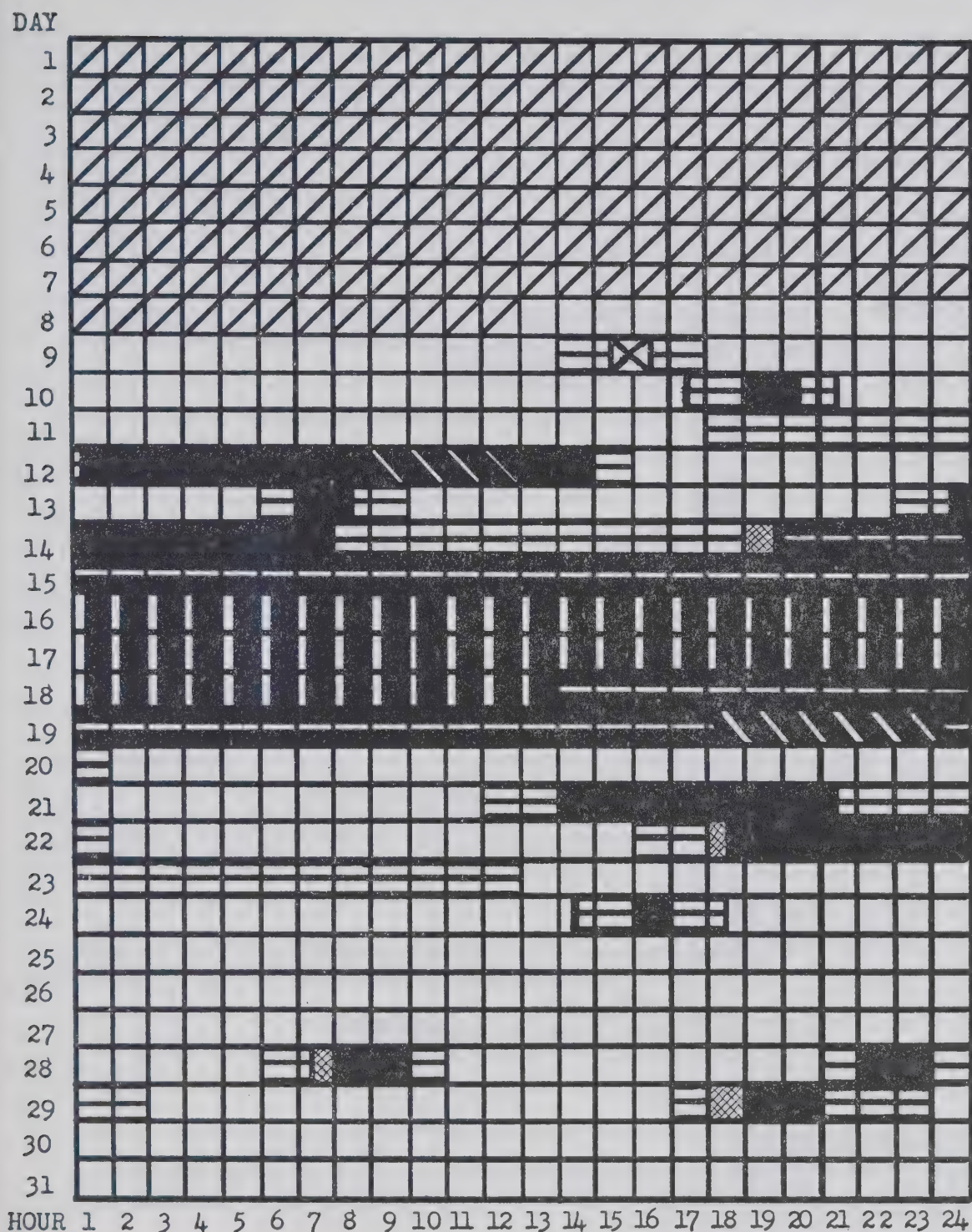
SOURCE OF INFORMATION: Ex. 214.

*For detailed analysis of graph, vide pp. 126-129.

LEGEND:

- ☒ Piloting, single assignment
- ☒ Piloting, two-pilot assignment
- ☒ Detention, awaiting departure after "ordered time"
- ☒ Detention on board ship en route
- ☒ Detention at outport awaiting ship at agent's request
- ☐ At home, available
- ☒ On leave
- ☒ Travelling, including waiting time before "ordered time"
- ☒ Cancellation

WORKLOAD OF PILOT R. McLEESE*—DECEMBER 1962












SCALE: one square = one hour

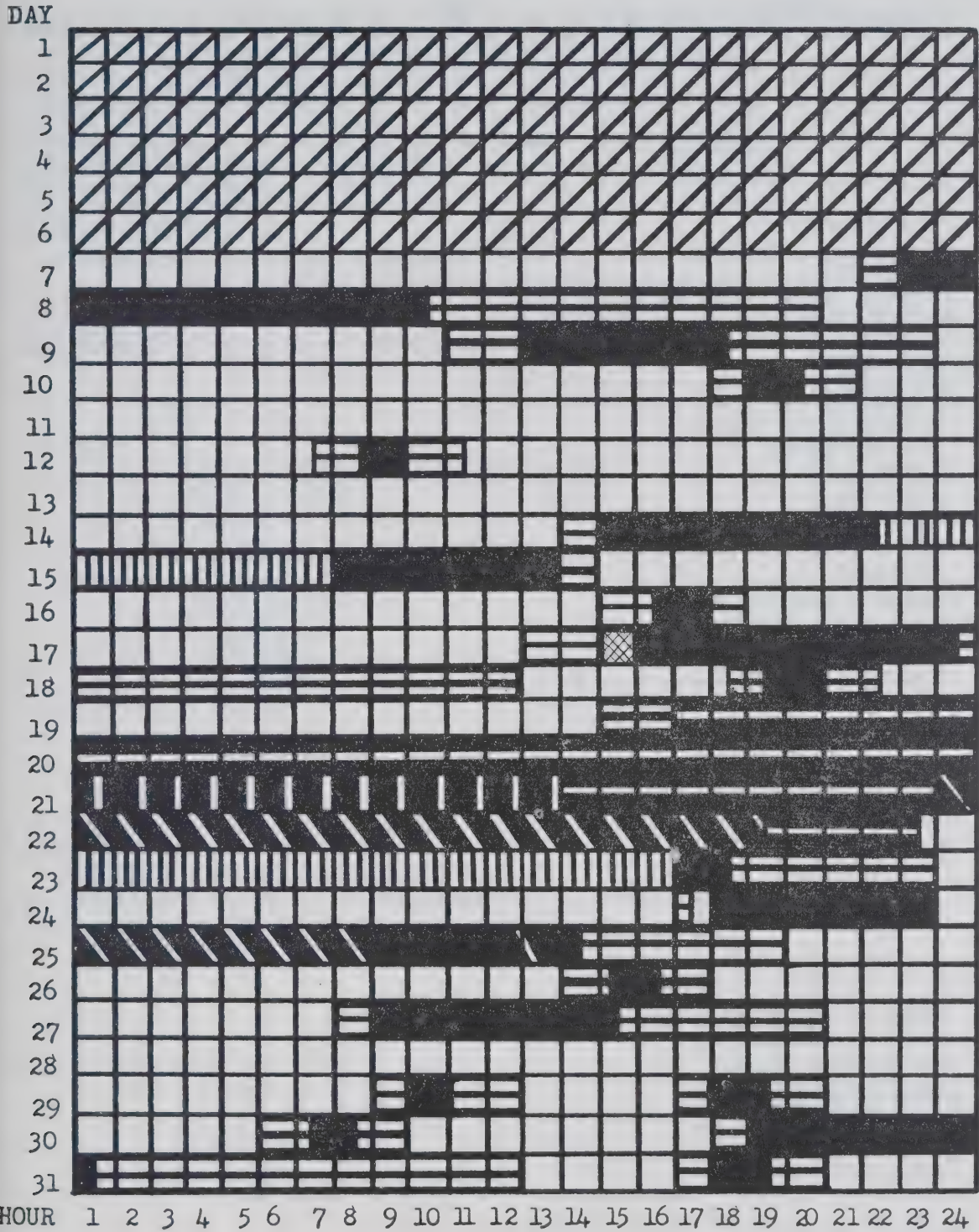
SOURCE OF INFORMATION: Ex. 214.

*For detailed analysis of graph, vide pp. 127-128.

LEGEND:

-  Piloting, single assignment
-  Piloting, two-pilot
assignment
-  Detention, awaiting departure after "ordered time"
-  Detention on board ship
en route
-  Detention at outport, awaiting ship at agent's request
-  At home, available
-  On leave
-  Travelling, including waiting time before "ordered time"
-  Away from home awaiting
assignment

WORKLOAD OF PILOT R. McLEESE*—JANUARY 1963



SOURCE OF INFORMATION: Ex. 214.

*For detailed analysis of graph, vide p. 128.

Appendix F

COMPARATIVE ANALYSIS OF ANNUAL FINANCIAL STATEMENT
OF REVENUES AND EXPENDITURES¹

	1962	1967
REVENUES ²		
<i>Pilotage dues</i> ³		
Belonging to pilots.....	\$1,288,499.55	\$1,818,826.57
Accessory services.....	66,422.50	90,717.75
	1,354,922.05	1,909,544.32
<i>Miscellaneous</i> ⁴		
Overcarriage and quarantine indemnities ⁵	—	—
Examination fees.....	110.00	—
Licence fees.....	60.00	30.00
Fines.....	—	45.00
Dues collected for other Districts.....	—	54.00
Damage to furniture.....	—	35.00
Savings Bonds deduction..	—	214.42
Insurance claims ⁶	—	5,716.28
Exchange.....	2.70	.04
Audit adjustment.....	69.91	—
Refund advance from the Pilots' Committee ⁷	—	512.75
Insurance premium from pilots.....	—	43.26
	242.61	6,650.75
<i>Not distributed</i>	—	7.92
	\$1,355,164.66	\$1,916,202.99
EXPENDITURES ⁸		
<i>Monies collected for third parties</i> ⁹		
Dues for other Districts....	—	54.00
Damage to furniture claims	—	35.00
Savings Bonds.....	—	214.42
Licence fees.....	60.00	30.00
Examination fees.....	110.00	—
	170.00	333.42
<i>District and service operating expenses</i> ¹⁰		
Pilots' expenses.....	209,467.32	329,692.80
D.O.T. boat fees ¹¹	36,660.00	48,490.00
Ship's half of launch fees ¹¹	29,762.50	27,076.25
Radiotelephone rental ¹¹	—	15,151.50
	275,889.82	420,410.55

	1962	1967
<i>Monies paid to, or on behalf of, pilots</i> ¹²		
Pension fund ¹³	124,504.12	175,098.92
Distribution to pilots ¹⁴	934,661.06	1,295,852.97
Pilots' own insurance.....	18,508.32	19,117.55
Pilots' own telephone.....	234.50	790.65
Stamps, stationery and miscellaneous ⁷	1,196.27	4,598.53
	<u>1,079,104.27</u>	<u>1,495,458.62</u>
<i>Not distributed</i>57	.40
	<u>\$1,355,164.66</u>	<u>\$1,916,202.99</u>

SOURCE OF INFORMATION: Exs. 197, 202 and 205.

¹Vide pp. 174–186 for analysis.

²Vide pp. 174–177.

³Vide p. 175; for breakdown of pilotage dues, vide table at p. 147.

⁴Vide pp. 175–176.

⁵Vide pp. 175, 178 and 183.

⁶Vide pp. 176, 178 and 183.

⁷Miscellaneous expenditures include the Pilots' Committee's and other pilots' delegate's expenses; the item of \$512.75 of miscellaneous revenues is the refund of unexpended advance on such expenses. Vide pp. 176, 182.

⁸Vide pp. 177–185.

⁹Vide pp. 177–178.

¹⁰Vide pp. 178–179.

¹¹Vide pp. 179–180.

¹²Vide pp. 179–185.

¹³Vide pp. 179–181 (compulsory contributions).

¹⁴The share of which is his "Take Home Pay" (vide pp. 133, 180, 183, 184–185).

Appendix G

COMPARATIVE TABLE OF ANNUAL FINANCIAL STATEMENTS OF RECEIPTS AND DISBURSEMENTS OF THE CORPORATION OF THE BRITISH COLUMBIA COAST PILOTS

	1963	1964	1965
RECEIPTS			
Members Dues.....	\$ 5,544.00	\$ 7,365.00	\$ 9,345.00
Special Assessments re Royal Commission ¹	4,900.00	450.00	5,192.50
Interest on Bank Deposits.....	73.24	144.71	191.26 ²
Refund of Expenses.....	71.45	14.68	500.00
Sale of Charts.....	—	44.00	70.20
	<u>\$10,588.69</u>	<u>\$ 8,018.39</u>	<u>\$ 15,298.96</u>
DISBURSEMENTS			
Allowance in Form of Pension to Retired Members \$	650.00	\$ 700.00	\$ 600.00
Christmas Gratuities.....	791.15	757.50	612.22
Stationery, Postage and Exchange.....	2.50	—	4.00
C.M.S. Guild Dues.....	—	6,270.00	6,300.00
	<u>1,443.65</u>	<u>7,727.50</u>	<u>7,516.22</u>
Surplus.....	9,145.04	290.89	7,782.74
	<u>\$10,588.69</u>	<u>\$ 8,018.39</u>	<u>\$ 15,298.96</u>
BANK ACCOUNT			
Balance at January 1st.....	\$ 683.78	\$ 9,828.82	\$ 10,119.71
Surplus for the year.....	9,145.04	290.89	7,782.74
Balance at December 31st.....	<u>\$ 9,828.82</u>	<u>\$ 10,119.71</u>	<u>\$ 17,902.45</u>

SOURCES OF INFORMATION: Ex. 1458 (vide pp. 185-188 for analysis).

¹Special assessments on members for Royal Commission expenses. There being no item of disbursement on this account, it is assumed it is a reserve for future disbursements. The reserve as of 1965 amounted to \$10,542.50.

²Contributions received from the Canadian Merchant Service Guild toward expenses incurred in connection with this Royal Commission.

Section Two

PILOTAGE DISTRICT OF NEW WESTMINSTER

Chapter A

LEGISLATION

1. LAW AND REGULATIONS

PREAMBLE

The Pilotage District of New Westminster is wholly governed by the provisions of the Canada Shipping Act which are generally applicable to the pilotage service and its organization; there are no statutory provisions of exception applicable to this District. There are, however, a number of Orders in Council, by-laws and regulations that specifically concern the New Westminster District.

(1) CREATION OF THE DISTRICT

The New Westminster District, as such, was created in 1904 (P.C. 236, dated February 6, 1904, Ex. 1427 (a)) by the division of the then "Pilotage District of Yale and New Westminster" into the "New Westminster Pilotage District" and the "Vancouver District".

The New Westminster Pilotage District limits are described therein as follows:

"...to embrace all the waters north of the International boundary line, east of mid-channel of the Gulf of Georgia and south of the north boundary of the Electoral District of New Westminster prolonged westwardly into the Gulf of Georgia."

This description first raises two questions of interpretation:

- (a) Which Electoral District is intended: Federal or Provincial?
- (b) Is the reference to "the north boundary of the Electoral District of New Westminster" a way of describing a geographical line by reference to the then north boundary of the Electoral District, or does the actual north boundary of the Electoral District, as such, have any bearing upon the delineation of the territory of the Pilotage District?

As for the first question, it is normal and logical to expect that, unless otherwise indicated, the expression "Electoral District" refers to the Federal Electoral District. This was confirmed by a study of the Electoral Districts

as they existed in 1904 which shows that the only Electoral District by the name of New Westminster was a Federal District. A New Westminster Provincial Electoral District had existed in 1871, as created by the Constitution Act 1871 of British Columbia; it had been reduced considerably in 1878 by the creation of the new coastal Electoral District of Cassiar (B.C.S. 42 Vic., 19). In 1890, by an amendment to the British Columbia Constitution Act (53 Vic., 7) its name was changed to "Westminster Electoral District", and it was further reduced by the creation of another District: the "New Westminster City Electoral District" (Ex. 1427(b)).

Such was the situation when Order in Council P.C. 236 of 1904 was passed. There was no longer any Provincial Electoral District of that name and the Governor in Council must, therefore, have referred to the only one that existed, i.e., the Federal one which is described in the 1903 amendment to the Federal Representation Act (3 Ed. VII, 60) as follows:

"The electoral district of New Westminster, comprising the provincial electoral districts of Chilliwack, Delta, Dewdney and New Westminster City, all that portion of the provincial electoral district of Richmond lying south of Burrard Inlet excepting the municipality of South Vancouver, and all that portion of the provincial electoral district of Yale adjoining the provincial electoral district of Dewdney, and lying west of a line commencing at the north-east corner of the provincial electoral district of Chilliwack, thence following the Fraser River to a point one mile beyond the village of Yale, and thence following a straight line to the northeast corner of the provincial electoral district of Dewdney" (See maps, Exs. 1427(c) and (d)).

With regard to question (b), it is obvious that the description in the Order in Council is merely a geographical reference, a way of describing a line and not a reference to the Electoral District as such. Otherwise, any modification to the north boundary of the Electoral District would automatically modify the north boundary of the Pilotage District.

Since 1903, the Federal Electoral District of New Westminster has seen its limits changed four times, the last alteration having taken place in 1947 (amendment to the Representation Act 1947, II Geo. VI, 71, and 1952 R.S.C. 238, Ex., 1427(c)). The former territory of the Electoral District has been considerably reduced; most of the navigable part of the delta of the Fraser River, the northern part of the channel and even Pitt River are no longer in the Electoral District (see map, Ex. 1427(e)). If the line which is the actual north boundary of the Electoral District is considered the northern limit of the Pilotage District, a preposterous situation would arise in that the whole of the navigable channel would no longer be within the limits of the Pilotage District.

It would have been illegal to give the Pilotage District a limit that could be altered without passing an additional, specific Order in Council pursuant to sec. 324, C.S.A. The limits of a Pilotage District must be fixed or altered by the Governor in Council acting under this section of the Canada Shipping Act. To do otherwise would amount to a delegation of power which is not

authorized in the Act and, therefore, is illegal. The territorial jurisdiction of the Pilotage Authority of the District, as it was created in 1904, can not be modified except by a further Order in Council passed pursuant to sec. 324 C.S.A. and can not be affected by external events such as the modification of the limits of the Electoral District. Therefore, the reference to the northern limit of the Electoral District in the Order in Council creating the District was made only as a means of describing the then existing line and was not intended to render the *situs* of the northern limit dependent upon the *situs* of the northern limit of the Electoral District in the future.

There now remains the very complex question of fixing the northern limit. There is no ambiguity about the south and west boundaries since the U.S.-Canada boundary and the mid-channel line of the Gulf of Georgia are lines that remain unchanged and are easily ascertainable. The eastern limit is not indicated and it is not necessary to do so since perforce it is the end of navigable water upstream from the mouth of the Fraser River.

The northern limit, however, presents difficulty. In order to find out the meaning of the reference "north boundary of the Electoral District of New Westminster" contained in the Order in Council, reference must be made to the description of the District contained in the governing federal statute applicable in 1904 where again reference is made, this time to the limits of a provincial district whose description has to be found in the applicable provincial statute. For the purpose of ascertaining the northern limit of the Pilotage District, the relevant part of the description of the federal district is where the north boundary line of the federal district touches the waters of the Gulf of Georgia so that the line could be "prolonged westwardly in the Gulf of Georgia". This part of the description of the 1904 New Westminster Federal Electoral District reads as follows (Representation Act as amended in 1903, 3 Ed. VII, c. 60, Ex. 1427(c)):

"The electoral district of New Westminster comprising...all that portion of the provincial electoral district of Richmond lying south of Burrard Inlet excepting the municipality of South Vancouver..."

The description of the provincial electoral district of Richmond as it existed in 1904 is to be found in the Redistribution Act 1902 of the Province of British Columbia (1902 B.C.S., c. 58, Ex. 1427(b)).

"...; thence southerly, following Jervis Inlet to a point south of Scotch Fir Point; thence southeasterly, through the centre of Malaspina Strait and the Straits of Georgia, to a point opposite the main channel of the Fraser River; thence following the main channel of the Fraser River...except..." "Vancouver City Electoral District" ..".

Therefore, the provincial electoral district of Richmond comprised the whole of the west coast of the mainland from Jervis Inlet to the Fraser River except for Vancouver City electoral district.

Of that huge provincial electoral district of Richmond, the north boundary of the Federal Electoral District of New Westminster, i.e., where it

touches the waters of the Gulf of Georgia, is described as "the portion . . . lying south of Burrard Inlet excepting the municipality of South Vancouver". Since the tip of the south shore of Burrard Inlet is not within the limits of either the City of Vancouver or the municipality of South Vancouver, this point of land is, therefore, the northern limit of the Federal Electoral District of New Westminster where it meets the waters of the Gulf of Georgia and, therefore, the northern limit of the Pilotage District of New Westminster which extends from there into the Gulf of Georgia to mid-channel. (Vide Electoral Atlas of the Dominion of Canada as divided for the tenth general election held in the year 1904, map No. 187 (Ex. 1427(d)).) Hence it includes the North Arm of the Fraser River.

The location of the northern limit of the Pilotage District was no doubt quite obvious for those who were in charge of the District in 1904, but it became quite confused when, due to modifications in the various statutes that were made applicable by reference, it no longer corresponded to a concrete reality. It is normal that within a few years neither the Pilotage Authority nor the pilots any longer knew whether the North Arm of the District was or was not within the New Westminster Pilotage District. This question was raised at a meeting of the Pilotage Authority held on August 29, 1960 (Ex. 1427(s)) following which the Pilotage Authority wrote to the Department of Transport in order to obtain the required information.

COMMENTS

The foregoing is an example of the errors to avoid in the procedure adopted to describe district limits. The description of the limits of a Pilotage District should be clear, simple and easily understood by any interested party (vide Part I, p. 55). The following procedure is suggested:

- (a) The limits should be described by simple geographical coordinate points that can easily be located both on maps and by ground references.
- (b) The description should be complete in itself without reference to other documents or statutes.
- (c) To avoid any possible conflict, the limits should be described on all sides. For instance, in this case the eastern limit should also be indicated either by saying that it comprises all the navigable waters of the Fraser River and other rivers flowing into it, or by a description of the limits beyond which the waters of the river, whether navigable or not, do not form part of the District (cf. the Saint John River in the Saint John, N.B., Pilotage District).

It is also pertinent to note that the New Westminster Pilotage District extends westward to the mid-channel line of the Gulf of Georgia from the tip of the south shore of Burrard Inlet on the north to the 49th parallel on the south. Therefore, vessels proceeding through Rosario Strait bound to or

from the Fraser River never enter the British Columbia Pilotage District. When the B.C. pilots navigate in that area of the Gulf of Georgia, they are outside their District and, therefore, without territorial competency. Furthermore, since this area of the Gulf of Georgia is outside the B.C. District, the B.C. District tariff does not apply, whether or not the B.C. pilots have rendered pilotage services there (vide B.C. Recommendation 3).

(2) PILOTAGE AUTHORITY (Secs. 325 and 327 C.S.A.)

The District has been administered by a three-member local Board since its creation in 1904 (and also prior to that when it was part of the greater District of Yale and New Westminster). At no time was a federal Minister the Pilotage Authority of this District.

The members of the Pilotage Authority are appointed from time to time by the Governor in Council at his discretion. The present Pilotage Authority consists of:

<i>Name</i>	<i>Office</i>	<i>Appointed by</i>	<i>Date</i>
W. E. A. Mercer	Chairman	P.C. 1953-1056	July 2, 1953
K. K. Reid	Member	P.C. 1936-529	March 4, 1936
Harry M. Craig	Member	P.C. 1957-1702	Dec. 20, 1957

(3) COMPULSORY SYSTEM

According to the governing legislation, pilotage is purported to be compulsory in the New Westminster District.

Prior to the division of the Yale and New Westminster District in 1904, the governing legislation was contained in the order in Council dated April 15, 1879 (Ex. 1427(f) which created that District. It imposed the compulsory payment of dues as follows:

"... And His Excellency, under the authority aforesaid, has been further pleased to make the payment of Pilotage dues compulsory within the limits of the said District, the same to extend as well to vessels coming to any of the said Ports from the Pacific Ocean as to vessels leaving any such Ports for the Ocean".

In 1904, when the Pilotage District of Yale and New Westminster was divided into the separate New Westminster District and Vancouver District (P.C. 236, dated Feb. 6, 1904, Ex. 1427(a)) the governing provision regarding the compulsory system is succinct: "*Pilotage to be compulsory.*"

This provision in the Order in Council has not been replaced or amended as far as the District of New Westminster is concerned and, therefore, is still the only governing provision.

Sec. 6 of the New Westminster Pilotage District General By-law entitled "Compulsory Payment of Pilotage Dues" can not have any bearing

on the matter (vide remarks on the subject p. 6). A provision of this nature appeared in the District By-law for the first time in 1930 and has been retained in subsequent By-laws (Ex. 1427(g)).

The consequence of the foregoing is that neither compulsory pilotage nor compulsory payment of the dues is legal in the New Westminster District. The compulsory payment system that existed prior to 1904 was deliberately abrogated by the 1904 provision which purported to substitute compulsory pilotage instead. When different language is used in legislation, a different reference is intended. Pilotage statutory legislation since Confederation has always stressed the difference between the compulsory payment of dues and compulsory pilotage (vide Part I, p. 207).

Whether or not the use of "compulsory pilotage" in the 1904 Order in Council was an error has no bearing. The language is clear and can not be construed to mean anything else. The 1904 provision abrogated the 1879 provision and, therefore, from that moment the compulsory payment system ceased to apply in the New Westminster Pilotage District. On the other hand, the 1904 provision was otherwise ineffective, because this was beyond the limit of the Governor in Council's powers. The 1904 provision did not make pilotage compulsory, because under the governing statute only Parliament could do so (as was done later for the Great Lakes).

(4) ORDERS IN COUNCIL NOT PASSED UNDER CANADA SHIPPING ACT AND AFFECTING THE ORGANIZATION OF THE PILOTAGE DISTRICT

By P.C. 1959-19/1093 of August 27, 1959 (Ex. 52) the Department of Transport was authorized, effective April 1, 1959, *inter alia*, to assume for the New Westminster District:

- (a) "The cost of establishment, operation, maintenance, and replacement of pilot stations";
- (b) "The cost of purchase, or charter or hire, and replacement of, and the cost of maintenance, operation and repair of, pilot vessels".

(5) PILOTAGE AUTHORITY'S ENACTMENTS CONFIRMED BY GOVERNOR IN COUNCIL

(a) *Appointment of a Secretary Treasurer (Sec. 328 C.S.A.)*

By P.C. 1962-899 of June 28, 1962 (Ex. 1427(i)), the Governor General in Council appointed Mr. Jack M. Warren as Secretary and Treasurer of the Pilotage District at a salary of \$550 per month payable out of pilotage dues received by the District.

It appears from the evidence that he has held this office since February 1, 1952, and from the financial reports filed (Ex. 149) that his salary was raised from \$500 to \$550 per month in 1961. Prior to the passage of the above-mentioned Order in Council in 1962, the Governor

General in Council's approval had never been sought either for his appointment or for the payment of his remuneration out of District revenues.

Sec. 3.3 of the District By-law (Ex. 146) leaves the remuneration of the Secretary to the Authority's discretion:

"(3) The Secretary shall receive a salary at a rate determined by the Authority".

The previous By-law passed in 1930 (Ex. 1427(g)) contained a similar section providing for the appointment of the Secretary and other officers and employees as well. Sec. 12 reads as follows:

"The said Pilotage Authority shall have authority to appoint a Secretary and other employees and officers and to fix their remuneration and define their powers and duties. All persons appointed shall be subject at all times to be removed without notice at the pleasure of the Pilotage Authority."

These By-laws are ultra vires (vide Part I, C. 5, pp. 110 and ff.)

(b) *Authorization for Payment of District Expenses (Sec. 328 C.S.A.)*

No Orders in Council were ever passed for this District except P.C. 1962-899 of June 28, 1962, referred to above, regarding the appointment and payment of the Secretary.

The General By-law contains provisions which purport to extend such authorization. Subsec. 10(2)(a) states:

"The Secretary shall pay out of the Pilotage Fund each month the following:

- (a) the salary of the Secretary and such other expenses incurred in conducting the business of the District as are approved by the Authority; . . ."

This By-law provision is ultra vires because the Pilotage Authority can not by its own regulations dispense with the necessity of following the statutory requirements enacted in sec. 328 C.S.A. (vide Part I, pp. 110 and ff.).

(c) *Exemption for Small Ships (Subsec. 346(c) C.S.A.) and Withdrawal of Exemptions (Sec. 347 C.S.A.)*

The Pilotage Authority, acting under the assumption that the payment of pilotage dues is compulsory, dealt in its By-law with the question of exemptions. There is no District regulation quoting subsec. 346(c) and sec. 347 as authority but the question is dealt with in the General By-law passed under sec. 329. (For effect on the By-law's legality, vide Part I, C. 8, p. 248.) No statutory relative exemption is withdrawn and all small ships not exceeding 250 net registered tons are exempted.

The By-law, however, provides an indirect exemption for scows by illegally making the compulsory payment system applicable to all vessels, whose regulation definition excludes the scow. In fact, this is not an exemption because Part VI of the C.S.A. does not apply to vessels that do not meet the definition of "ship", which excludes "scow". (Re the validity of the regulation definition of the term "vessel", vide Part I, pp. 218 to 220).

(6) DISTRICT GENERAL BY-LAW

The General By-law now in force dates from November 30, 1961 (P.C. 1961-1740) when it replaced the 1930 By-law (P.C. 957 of May 7, 1930 as amended). Up to 1968 it had been amended four times (P.C. 1964-1493 of Sept. 23, 1964, P.C. 1965-1738 of Sept. 22, 1965, P.C. 1966-626 of April 4, 1966 and P.C. 1966-2409 of December 22, 1966). The four amendments deal exclusively with tariff items.

The basic principles of organization provided in the 1961 General By-law are the following (the cross reference to Part I of the Report appearing at the end of a paragraph indicates where the subject-matter is dealt with in Part I of the Report):

- (a) Full control of the organization of the pilotage services is exercised by the Authority, the actual management being by the Secretary (Part I, pp. 73 and ff.).
- (b) Pilots are represented by a Pilots' Committee of three elected annually (Part I, pp. 82 to 84).
- (c) Pilots are recruited from Canadian citizens with 2 years' residence, prior to licensing, in British Columbia from Masters who have been engaged for at least 3 years in the coasting trade in British Columbia waters, not necessarily on the Fraser River. There is no apprenticeship but the successful candidate first serves on probation for one year (re the validity of the discrimination based on citizenship and residence, vide Part I, p. 251; re the legality of probation, vide Part I, pp. 268 and 269).
- (d) The number of pilots on strength is controlled administratively by the Pilotage Authority (Part I, pp. 255 and ff.).
- (e) The District is, in principle, financially self-supporting since the operating expenses of both the District and the service are paid out of dues collected (Part I, C. 5).
- (f) Pilotage assignments are made by the Secretary according to a roster system (Part I, C. 4).
- (g) The earnings of the District are pooled (Part I, pp. 74 and ff.), and the pilots receive as remuneration an equal share of the net earnings of the pool, the share being based on the time available for duty (Part I, p. 249).
- (h) The pilot's status is *de facto* employee, he is entitled to an annual 30-day vacation with pay, and sick leave with full pay, half pay and without pay depending on the circumstances and the length of the absence.
- (i) Trip dues are based on draught and tonnage; since 1966, gross tonnage (P.C. 1966-2409); for services other than normal inward and outward pilotage, special fees are provided, e.g., passages

through the Westminster Bridge or a trip east of the mouth of the Pitt River call for an extra charge.

- (j) For pension purposes, contributions are deducted compulsorily. The amount of the contribution is determined annually by the Authority after consultation with the Pilots' Committee and shall not be less than 7% nor more than 10% of the gross revenue of the District. According to the By-law provision, the ensuing fund is to be administered by the Authority. However, the By-law is silent as to the nature of the pension scheme, its beneficiaries and its benefits.
- (k) The seaward boarding station of the District is located "one mile seaward of the Sandheads Light Station entrance to the Fraser River".
- (l) The Master or agent of a vessel is required to give a notice of requirement of a pilot in sufficient time to enable the pilot to meet the vessel.
- (m) The Pilotage Authority exercises disciplinary powers. An accused pilot is permitted to present his defence to the Authority either personally or in writing. The maximum pecuniary penalty is \$200; recovery of the pecuniary punishment may be effected by set-off (Part I, p. 373 and ff.). In addition, a pilot's licence may be cancelled or suspended; there is no maximum limit for suspension.

(7) PILOTAGE AUTHORITY, OTHER RULES

Aside from the orders made by the Authority and the Secretary for the actual management of the service, pursuant to the General By-law, the Pilotage Authority has, on the recommendation of the pilots as a group, issued a list of "recommendations for the safety of ships navigating the Fraser River" (Ex. 160). All but one of these are in the imperative form. These will be analyzed and discussed later (vide pp. 281 and ff.).

2. HISTORY OF LEGISLATION

PREAMBLE

The Pilotage District of New Westminster, as a separate entity, was created in 1904 when the former District of Yale and New Westminster was divided into the Pilotage Districts of Vancouver and New Westminster. (For the history of legislation prior to that date reference is made to the *History of Legislation* of the British Columbia District, pp. 10-17).

The New Westminster District came under the terms of reference of the Robb Royal Commission in 1918 (pp. 14-15). One of its recommendations was that this District be left as it was, i.e., as a separate entity, on

account of its exceptional situation governed by local conditions which set it apart from other Districts. Heed was taken of this recommendation and, while in 1919 all the other Districts on the west coast were amalgamated into one huge District under the name of the British Columbia Pilotage District, the New Westminster District remained separate and continued to function without interruption.

For study purposes the organization of pilotage in the New Westminster District may be divided into two distinct periods: prior to, and after, 1930.

Legislation prior to 1930

Up to 1930, the pilots practised free enterprise and competed against each other. Since the Pilotage Authority was only a regulatory body, the pilots were liable for any expenses the Authority incurred at their request or pursuant to the section of the Act which corresponds to sec. 328 of the present Canada Shipping Act. Anyone could become a licensed pilot (there was no restriction on numbers) provided he possessed the prerequisites enumerated in the By-law and passed the prescribed examination. It was mandatory for the Authority to grant an applicant an examination and, if he was successful, to issue him a six-month probationary licence which would be replaced by a permanent licence if his qualifications proved adequate.

The first pilot to hail a ship on her inward voyage to offer his services was entitled to the pilotage dues, whether he piloted her or not, and, furthermore, he was entitled to pilot her outward but, if not available at that time, the Authority would assign another pilot, usually the first one who reported as being unengaged.

The Authority regulated and supervised the service: by seeing that the licensed pilots were, and remained, qualified and physically and mentally fit; by settling any dispute that might arise, either between pilots, or between pilot and Master; by investigating casualties, complaints, breaches of law and regulations.

The Authority was also empowered to grant annual certificates (for an annual fee) to Masters and mates of regular traders, valid for the named vessels and ports.

The pilots were responsible for, and paid, the District expenses, proportionate to the earnings they had each made during the year.

The only reason why the dues (which belonged to the pilots) were made payable to the Authority was to make sure that each individual pilot was assessed and paid his rightful share of District expenses.

On returning from an assignment, each pilot was obliged to report its particulars so that the dues could be computed. If the pilot had collected the dues himself, he was required to remit them to the Authority without delay.

When the dues were collected, the pilot was paid on a monthly basis the dues he earned less 10% which was deducted for District expenses. At the end of the year, there was an adjustment and each pilot received his proportionate share of any accumulated surplus. Conversely, if there was a deficit, each pilot was assessed his share based on the ratio of his earnings to the total earnings.

Monies collected by the Authority from other sources, such as fines, licence fees and annual pilotage certificate fees, were kept in a separate fund called in the By-law the "pilotage fund". These monies were to be applied as stipulated in the Act (vide Part I, C. 5).

From the Yale and New Westminster District By-law, approved by Order in Council dated April 28, 1894 (Ex. 1427K(i)), which remained in force after the 1904 partition until 1906, the following points are noted: no minimum competency requirement was set this being left to the judgment of the Pilotage Authority; the fees for the annual pilotage certificates for Masters and mates were fixed at \$100 per annum; pilot boats were licensed at a fee of \$5 per annum; only pilotage within port limits was subject to compulsory payment; dues for pilotage between the port limits and sea were payable only when a pilot was employed; a pilot's licence was automatically suspended during the investigation of any shipping accident in which he was involved.

The first By-law for the District of New Westminster was enacted September 10, 1906 (Ex. 1427K(ii)) and was not amended until it was replaced in 1930. There was no provision for the licensing of pilot boats; payment of dues was compulsory anywhere on the Fraser River "from the lightship on the Fraser Sandheads to New Westminster" as compared to the former requirement to pay for pilotage within port limits only, i.e., Steveston and New Westminster; no provision was made in the tariff for pilotage charges between the light-ship and sea (from then on outside the District); there was no provision for a pilot fund.

Legislation after 1930

With the 1930 By-law (Order in Council 957, dated May 7, 1930, Ex. 1427 (g)), the foregoing was radically changed. The pilot's lot was improved and he was given more security and better working conditions, but at the expense of the freedom he had up to then enjoyed. The Authority no longer acted merely as a supervising and regulating body but assumed a new role: actual management of the pilotage service.

Competition was abolished: first, by limiting the pilots to the number considered necessary to meet the demand; secondly, by despatching the pilots on a roster system in the most equitable way possible; thirdly, by providing the pilots with a pilot boat service at the District's expense, so that the pilots no longer waited in their own boats off the boarding station for

vessels arriving from sea. Thus the pilots lost the right to choose a ship and the privilege of working less or more than their fellows.

The individual pilot was no longer entitled to the dues he had earned by his services. All the pilotage dues were now collected by the Authority and deposited in a special account—the Pilotage Fund—out of which the Authority paid the operating expenses of the District. Each pilot was then entitled to his share of the District net earnings, not on the basis of the number or value of his pilotage assignments, but on the basis of the time he had been available for duty. This share was called “pay” where the By-law stated that a pilot might be granted leave with pay, with half pay or without pay.

The Authority assumed the obligation and expense of making pilots available to incoming vessels. It despatched the pilots as equitably as possible and assumed the cost of acquiring, maintaining and operating the pilot boat service. A Pilots’ Committee was created to be the liaison between the pilots and the Authority.

With regard to the pilot boats, sec. 9 of the By-law provided that they should be purchased, or built, and maintained out of the District revenues. Sec. 10 stated:

“The pilots shall be deemed not to have any individual claim or interest in any vessel or vessels registered in the name of the Pilotage Authority”.

The Authority was empowered to fix the number of permanent pilots but also had “the power of appointment of a pilot for special occasions” (sec. 16); the probationary period was extended to one year and an age limit was fixed at 65 with the possibility of renewal up to the age of 70; pilotage certificates were no longer issued to Masters and mates; a superannuation fund was created to which was credited a share from the gross revenues of the District and all monies received by way of fines, licences or fees other than pilotage dues and examination fees.

The 1930 By-law was frequently amended, mostly with regard to tariff and superannuation regulations and benefits.

In 1958, the Pilotage Authority contracted out the pension scheme. This was reflected by a further amendment, P.C. 1960-1035, dated July 28, 1960, which abrogated all the sections dealing with the superannuation fund except the one stipulating a compulsory deduction.

The 1930 By-law as amended was abrogated in 1961 and replaced by the new General By-law which is still in force and which was studied earlier (vide pp. 250 and ff.)

Royal Commissions and Other Investigations

In the *Robb Report of 1918*, the following excerpts are of interest:

“The pilotage system of British Columbia probably originated during the rush to the gold diggings on the Fraser River in 1858, during the regime of the

Hudson's Bay Company, at which time Governor Douglas established rules and regulations for the navigation of the Fraser River. The first pilot licences issued were for the district of New Westminster and Yale. In 1879 a new authority was established which embraced the districts of Victoria, Burrard Inlet, New Westminster and Nanaimo. In 1907¹ the districts of Vancouver and New Westminster were placed under separate commissions, as at present constituted" (p. 3).

"The ports of the pilotage district of New Westminster include the ports of New Westminster and Steveston as well as the several way landings on the Fraser River".

"The district of New Westminster is somewhat exceptional as compared with the other pilotage districts on the British Columbia coast, as it is governed by local conditions which do not affect the other districts, and as the revenue derived from pilotage in this district is not sufficient to pay the necessary expenses of maintaining a pilot the municipal authorities of New Westminster have assumed this charge, and pay the only pilot of the district a monthly salary, while whatever receipts there are from pilotage are turned over to the city of New Westminster by the pilotage commission, after deducting the necessary expenses incurred by the said commission" (p. 7).

In the recommendations there is no mention of the New Westminster District, except in paragraph 27 which proposed "the payment of pilotage in the Gulf be made compulsory, based on draught of water" only, the rate of which, for a trip from sea to New Westminster, being \$3.50 per foot draught.

In the *Morrison Report of 1928*, there is very little about the New Westminster District. It recommended:

"That the present system in vogue on the Fraser River be continued there, new by-laws to be substituted for the present somewhat obsolete ones" (p. 8).

"The pilotage of the Fraser River in the New Westminster District stands on a different footing from that of the other districts".

"The substance of the evidence of the few witnesses who appeared at the final sittings of the commission there, related mainly to matters of local administration and to the personnel of the pilotage group serving the river. The channels of the delta of the Fraser carry so much silt throughout the year that they are constantly shifting. It is necessary for the few pilots employed to be thoroughly familiar with these local conditions. As it has been put by some of the witnesses, it is 'a matter of pilotage apart from navigation'. This district has had, for a long period, a commission of three citizens. The system under which pilotage affairs have been carried on appears to have worked on the whole very satisfactorily . . . Your commission does not deem it necessary to make any recommendations as to the Fraser River . . ." (p. 10).

In 1947, Captain F. S. Slocombe of the Department of Transport, conducted a survey and visited New Westminster (although it was not a District where the Minister of Transport was the Pilotage Authority). The following excerpts from his Report, *inter alia*, are noted:

"There are at present four fulltime pilots, with one temporary pilot as a relief when necessary. The temporary pilot is Master of a Public Works tugboat and does not pool his earnings, nor does he participate in superannuation. He keeps his fees for the pilotages which he performs".

¹ The actual year was 1904.

Study of New Westminster Pilotage District

"The pilots keep one boat at the mouth of the river and employ two men on watches to look after it. The pilots stay at home until called. The boat is paid for except for \$900., and it costs \$400. per month for its operation, including wages, interest on the loan (but not the principal), insurance and upkeep. The pilots pay out of gross earnings all expenses including the upkeep of the office, secretary's salary, rent, etc. There is altogether about \$1,000. taken off the gross earnings per month, including a certain percentage for superannuation".

"The pilots at the time of this survey were performing about thirty pilotages per month between them, in addition to movages. The net earnings of each pilot in the calendar year 1945 were \$5,500, and were expected to be \$6,000 for 1946".

The *Audette Committee of 1949* did not investigate the New Westminster District because its mandate referred only to Districts where the Minister of Transport was the Pilotage Authority. But the financial assistance that was to be granted dating from 1959 to the maintenance of the pilot vessel service was certainly one of the results of the policy recommended in this Committee's report.

By Order in Council P.C. 1959-19/1093 dated August 27, 1959, the Department of Transport was authorized to assume the cost of operating, etc., pilot vessels and pilot stations in the two important Districts where the Minister of Transport was not the Pilotage Authority—New Westminster and St. John's, Newfoundland. The Department was already providing these services in the Districts where the Minister was the Authority, and the Order in Council stated:

"That there are other pilotage districts which are equally deserving of assistance in the matter of pilot station and pilot vessel expenses and it may, with some justification, be claimed that such districts are being discriminated against".

Chapter B

BRIEFS

Six briefs concerning the New Westminster Pilotage District were filed by:

- (1) The Pilots of the Pilotage District of New Westminster
(Fraser River)
(B-9, Ex. 169 and addendum);
- (2) The Vancouver Chamber of Shipping
(B-4, Ex. 168);
- (3) Crown Zellerbach Building Materials Limited
(B-6, Ex. 165 and addenda);
- (4) The New Westminster Harbour Commissioners
(B-7, Ex. 166);
- (5) Pacific Coast Terminals Co. Ltd.
(B-11, Ex. 167);
- (6) New Westminster Chamber of Commerce
(B-44, Ex. 1337).

The reference after each Recommendation shows where the question raised is dealt with in the Report.

(1) THE NEW WESTMINSTER PILOTS' BRIEF

When the brief was prepared, March 25, 1963, the pilots were seven in number, not formed into any association or corporation but represented by the three-man Pilots' Committee required by the Pilotage District By-law, section 5. All were members of the Canadian Merchant Service Guild, and all resided in the New Westminster area.

The pilots' recommendations are briefly as follows:

- (a) pilots' earnings to be comparable, at least, to the highest paid Master using their services (p. 357);

- (b) pilots to be "reimbursed by the total pilotage receipts" and bear no part of office and/or pilot boat expenses; and, as a means of achieving this aim, the present Authority to be replaced by the Minister of Transport as Pilotage Authority (General Recommendations 20 and 21, Part I, pp. 521 and ff. and 524 and ff.);
- (c) remuneration to be sufficient to provide for unforeseen compulsory retirement at an early age (Part I, C. 6 and New Westminster Recommendation 1);
- (d) pilotage dues to be compiled on the basis of maximum gross tonnage and draught (pp. 348-351);
- (e) pilots to have a greater part in operations and management, including the examining, selecting and appointing of probationary and temporary pilots (General Recommendation 14, Part I, pp. 495 and ff.);
- (f) the superannuation scheme to be improved through participation by, and assistance from, the Government and the shipping industry (General Recommendation 39, Part I, pp. 581 and ff.);
- (g) a second pilot boat to be provided, since the one available is inadequate to maintain the service (p. 339 and New Westminster Recommendation 1).

(2) THE VANCOUVER CHAMBER OF SHIPPING BRIEF

For the nature of this organization and its rôle with regard to shipping and related problems, reference is made to the analysis of the British Columbia Pilotage District (pp. 26-27).

The Chamber of Shipping's recommendations may be summed up as follows:

- (a) The remuneration of the pilots in the New Westminster District should not be increased solely because it is less than that of the pilots in the British Columbia District (p. 357 and Part I, C 6.)
- (b) All interested parties should be consulted before any change is made in the rules, to avoid arbitrary action (pp. 311 and ff.).
- (c) The Pilotage Authority should be abolished and replaced by a Central Board in Ottawa, the present Secretary and personnel being kept in office under the jurisdiction of the British Columbia District Superintendent (General Recommendations 14, 16, 17, 18 and 19, Part I, C. 11, and New Westminster Recommendation 1).

(3) CROWN ZELLERBACH BUILDING MATERIALS LIMITED BRIEF

Crown Zellerbach Building Materials Limited (formerly Canadian Western Lumber Co. Ltd.) has its head office in Vancouver and a plant at Fraser Mills, in the port of Fraser Mills, upstream from New Westminster and the railway bridge on the Fraser River. The plant is a large diversified sawmill and plywood operation employing eleven hundred men and producing yearly 150 million feet board measure of lumber and 105 million square feet of plywood. There are berthing facilities, of approximately 1,200 feet, which will accommodate two large deep-sea freighters. Their principal means of transportation is the Fraser River.

The Company's recommendations may be summed up as follows:

- (a) measures to reduce the restrictions on deep-sea ships proceeding to and from points east of the Fraser River railway bridge (pp. 299 and ff.) by:
 - (i) increasing the depth of the Sapperton and Port Mann channels to 30 feet below local low water;
 - (ii) eliminating the restriction on night navigation through the railway bridge by the addition of suitable aids to navigation such as illumination of channels and/or the bridge;
 - (iii) a special study to determine more effective handling of bridge aft vessels on the Fraser River;
- (b) a dredging policy by the Department of Public Works which would meet the needs of the port of Fraser Mills (pp. 311 and ff.);
- (c) conversion of the old Fraser River bridge from a swing span railway bridge to a lift span railway bridge (pp. 311 and ff.).

(4) THE NEW WESTMINSTER HARBOUR COMMISSIONERS' BRIEF

The Port of New Westminster is administered by a three-member Corporation created by a special Act of Parliament "The New Westminster Harbour Commissioners Act" (3-4 George V, c. 158) (Ex. 513). One member is appointed by the City of New Westminster and the two others by the Governor in Council (sec. 6). The Corporation has no jurisdiction or control respecting private property or rights within its limits or with any property of the Crown except when duly authorized by Order in Council (sec. 12). It has power to sue and be sued (sec. 13) and to hold property (sec. 14). Profits from operations, if any, to belong to the city (sec. 16). The Corporation has rights of expropriation (sec. 18) and borrowing powers (sec. 19). It has authority to make by-laws for traffic control in the harbour of vessels, including boats as small as row boats, and for imposing tolls upon vessels and goods on board. All such by-laws must be approved by the Governor in Council (sec. 20). The Corporation has to

account yearly to the Governor in Council for its financial responsibilities (sec. 29). Its officers and employees consist of the Port Manager, the Secretary, the Harbour Master and such other officers, clerks and servants as may from time to time be appointed by the Commissioners (sec. 11).

Pursuant to their traffic control powers, the Commissioners have included in their by-laws (P.C. 1961-1770) (Ex. 156) some provisions regarding mooring, anchoring and obstructions in the port and on the river by booms, rafts, fishing vessels, etc. . . . and have modified the normal rule of the road regarding the transit of the railway bridge. These will be studied later.

Their Recommendations contained in their brief and in their evidence may be summed up as follows:

- (a) that machinery be set up to mediate differences of opinion on pilotage matters as a guarantee against arbitrary decisions on the part of the pilots (pp. 311 and ff. and General Recommendation 19, Part I, pp. 515-520);
- (b) that means be taken to facilitate the transit of the railway bridge (pp. 299 and ff.):
 - (i) by improving aids to navigation, the channel, etc.;
 - (ii) by improving the pilotage service and making it more readily available, e.g., specializing selected pilots in the handling of bridge aft vessels and developing new pilotage techniques such as using two pilots or employing tugs;
- (iii) that the swing span of the railway bridge be replaced by a lift span.

(5) PACIFIC COAST TERMINALS CO. LTD. BRIEF

Pacific Coast Terminals, which is 72% owned by the Consolidated Mining and Smelting Company of Canada, owns and operates storage, warehouse and commercial dock facilities in New Westminster and operates bulk-loading facilities in Port Moody. The Company, as such, does not own or charter vessels nor does it act as a shipping agent. It receives and arranges commodities for onward transportation by water in ships trading into New Westminster, and receives from incoming vessels cargo for distribution in the general area.

Its recommendations may be summed up as follows:

- (a) the Fraser River pilotage system to be continued and improved for the development of shipping and trade (New Westminster Recommendations 1 and 2);
- (b) the payment of dues to be compulsory but not to exceed those of Vancouver (New Westminster Recommendations 1 and 2);

- (c) Part VI of the Canada Shipping Act to be amended to provide adequate administration and proper government of the pilots (General Recommendations, Part I);
- (d) the District to be merged with the British Columbia District and administered by a Central Authority; or at least that the New Westminster Pilotage District limits be fixed so as to overlap with the British Columbia District to the extent of including the Harbour of Vancouver in order to avoid the change-over of pilots for trips between the Fraser River and Vancouver Harbour (New Westminster Recommendation 1);
- (e) the ship channel on the Fraser River to be improved to ensure adequate width and depth in the light of present trends in the design and size of ships, and their consequent deeper draught (pp. 299 and ff.).

(6) NEW WESTMINSTER CHAMBER OF COMMERCE BRIEF

The municipalities of Surrey, Port Coquitlam and Fraser Mills, and Domtar Chemicals Limited, Canada Creosoting Division and the B.C. Towboat Owners' Association are situated east of the railway bridge and Grosvenor-Laing (B.C.) Limited to the west. Domtar Chemicals Limited operates a facility upstream from the bridge and Grosvenor-Laing (B.C.) Limited operates Annacis Industrial Estate on Annacis Island, Delta Municipality.

These municipalities and companies have endorsed the Crown Zellerbach recommendations that every possible means be taken to improve the water access to the area above the railway bridge (Ex. 192). They urge "that every possible means be employed to ensure the immediate replacement of the swing span thereby implementing what has been for almost twenty years, and what presently remains, the most economic and sensible solution" (p. 311).

Chapter C

EVIDENCE

1. GENERAL DESCRIPTION

(1) DISTRICT LIMITS

In general terms, the Pilotage District of New Westminster comprises the navigable waters of the Fraser River and its delta including the North Arm. It extends westward into the Strait of Georgia as far as the mid-channel line from the International Boundary on the south, to the seaward extension of Point Grey, south of Burrard Inlet. The Sand Heads boarding station, situated one mile seaward of Sand Heads lighthouse, is well within the District limits and vessels arriving from, or sailing to, United States waters can enter or leave the District of New Westminster without passing through the Pilotage District of British Columbia.

In practice, the District waters for deep draught vessels extend some twenty-four miles from the boarding station upriver as far as Port Mann. Shallow draught vessels may proceed further up to Mission City some fifty miles from the mouth of the Fraser.

Recommendations Received on District Limits

It was recommended by Pacific Coast Terminals Limited that the New Westminster pilots' territorial competency be extended to the harbour of Vancouver to enable them to commence or terminate their pilotage trips bound to or from the Fraser River. It was argued that a substantial saving in time and money would be derived by eliminating the changeover of pilots at Sand Heads in about 30% of the ocean-going vessels plying the Fraser River, i.e., for those vessels that are either coming from or bound for Vancouver. It was claimed that Vancouver has no unusual pilotage problems that are not encountered in New Westminster, but it was also agreed that specialized, up-to-date local knowledge was necessary for pilotage on the Fraser River and that the B.C. pilots' territorial competency should not be extended to the New Westminster District.

Another recommendation made by both the Vancouver Chamber of Shipping and Pacific Coast Terminals Limited was that the two Districts be merged for administrative purposes, partly to simplify shipping operations, but mainly to eliminate duplication of pilotage and the resultant

added expense. Pacific Coast Terminals Limited saw this as an alternate method of implementing their first proposal.

The Vancouver Chamber of Shipping also submitted that the present situation is difficult and cumbersome because, the Minister of Transport not being the Pilotage Authority, the Department of Transport is not particularly concerned with pilotage in the New Westminster District. On the other hand, they remarked that in the British Columbia District the Department takes a keen interest in pilotage through the Superintendent of Pilots—one of its employees. The Chamber added that by giving the supervision of the New Westminster District to the Superintendent of Pilots in Vancouver liaison would be improved and, therefore, the pilotage service would become more efficient. The Chamber recommended, however, that the present District Secretary at New Westminster be retained as despatcher under the direction of the Superintendent in Vancouver.

The last recommendation is covered in the Commission's General Recommendations 15 and 18 to which reference is made (vide Part I, C. 11). The recommended merger of the New Westminster District with the B.C. District or making Vancouver Harbour the joint territory of both Districts will be dealt with in a specific Recommendation.

(2) PHYSICAL FEATURES

The principal feature of the District is the delta at the mouth of the eight hundred and fifty mile long Fraser River with the many characteristics and hazards common to deltas, i.e., flat land, alluvia, silting, shallows and branching, meandering waters.

Visibility is often reduced by heavy rain, by severe snowstorms, (which may last three or four days) and by fog which frequently occurs from October to the end of March. Deep-sea vessels may be delayed by any of these causes.

A hazard is also created by the smoke and smog from the refining and reduction plants at Steveston. At times, visibility is reduced to nil.

Before dredging began in 1885, the channel depth was only eight feet at low water. In 1913, the river was dredged to sixteen feet in order to accommodate the increasingly larger deep-sea steamers that were gradually replacing sailing vessels.

As of 1963, the channel was maintained at a depth of 28 to 30 feet as far as the railway bridge. However, there were some shallow areas, e.g., at Steveston Bar and Kirkland Island where the available depth at low tide was 22 and 24 feet respectively. Due to improvements made in the channel, as of May, 1968, the controlling points for maximum draught are now at the river mouth—24 feet at low water—and the Steveston Cut—26 feet at low water (Ex. 160).

Above the railway bridge the channel shallows. In 1963, vessels bound upriver past the railway bridge were restricted to 24 feet in and 25 feet out for Fraser Mills, and 25 feet each way for the Gypsum Plant. (Ex. 160).

In addition, because of the winding, narrow bends in the channel below the railway bridge, it had been decided that a vessel's maximum length for safe navigation in the river was 600 feet and then only under the best tidal conditions, and in daylight. (Ex. 160). (Re details and validity of these restrictions vide pp. 281 and ff.).

The railway bridge is another controlling and restricting factor that will be studied later.

In view of the trend to larger and deeper ships, the New Westminster Harbour Commissioners were planning in 1965 to improve the waterway by widening and dredging the ship channel to accommodate ships drawing up to 35 feet. Although the channel has been improved, this aim has not yet been achieved. As of April 1968, the maximum draught considered safe by the pilots on a 12 foot tide or better at Sand Heads was 31 feet (Ex. 160).

Large vessels do not proceed east of Port Mann because four miles upriver a shoal limits navigation to ships drawing not more than four feet. The smaller craft which ply this section of the river occasionally employ a pilot. During the 1948 flood, when the Royal Canadian Navy was called upon to assist those who were marooned in the upper Fraser Valley, several naval craft navigated far upriver.

Anchorage is restricted to certain named areas because the channel is narrow and the normal current of the river is reversed by the flood tide during most of the year. Even in these areas the pilots remain on board and maintain a security watch on account of the indifferent holding ground and exposure to the wind.

(a) *Freshet, Water Level and Silting*

A special feature of the New Westminster Pilotage District is the freshet. The upper reaches of the Fraser River freeze over during the winter thus reducing its flow considerably. When the snow and ice melt in the spring there is a tremendous increase in the volume of water. Hence, the rate of outflow varies according to the season of the year: during the period September to April the rate of discharge falls to a low of 20,000 cubic feet per second, but during the freshet months, May to August, the rate may rise as high as 500,000 cubic feet per second.

From late fall to early spring the predominant influence in the river as far up as Fraser Mills is the tide. The flood tide reverses the current attaining a velocity of $2\frac{1}{2}$ to $3\frac{1}{2}$ knots under the railway bridge. During each twenty-four hours two periods of slack water occur.

During the freshet period there is a combination of tidal influence and water discharge. About the first of May the runoff from the spring thaw commences. The gauge at Mission City, 30 miles above New Westminster, rises from its normal level of 4-7 feet to an average of 20 feet. The highest levels on record are 24.71 feet in 1948 and 24.19 feet in 1950. From statistics filed as Exhibit 185, it appears that the river returns to normal level during the latter part of July.

One result of the freshet discharge, particularly in the vicinity of New Westminster, is that the upstream movement of the flood tide is nullified whenever the gauge at Mission City registers more than 10 feet. Although the level of the river rises by as much as 8 feet on the flood tide, there is at all stages of the tide during these months a downstream current which may reach $7\frac{1}{2}$ to 8 knots, although 6 to 7 knots is the normal expectation. This may be compared with a winter upstream flow of $2\frac{1}{2}$ to $3\frac{1}{2}$ knots on the flood tide, and a downstream current of $4\frac{1}{2}$ knots on the ebb tide.

Since the river is winding, sets across the channel from one side to the other are normal, and the pilots are so accustomed to them that they know exactly what to expect, depending on the season and the state of the tide. These sets are more pronounced during the freshet season as a result of increased currents, turbulence and eddying.

The water level of the Fraser is not constant. In addition to the tidal fluctuation (which might reach 12 feet at the estuary) there is the low water slope. At slack tide, the lowest reading would show a slope from 6 or 7 feet at New Westminster to zero at the river's mouth.

Silting is a hazard common to deltas everywhere. In the Fraser estuary it does not occur gradually through regular sedimentation, but develops abruptly in the freshet season. From September to May there is little silting but as the river rises sediment is carried from the interior, some carried to the sea and some deposited along the navigable channel. When the freshet subsides, it is usually found that heavy deposits have been left, mostly in eight different areas, ranging from three or four feet in most sections but up to fourteen feet in the vicinity of Fraser River Elevator No. 4 (Exs. 147 and 148). Mariners must be constantly on the alert. The charts of the area bear a "Caution" that the depths shown thereon are subject to change as a result of silting and subsequent dredging.

High freshets also cause scouring, i.e., removing material from one side of the channel and transferring it to the other, and on two occasions the channel was completely changed. However, this is a gradual development which the pilots can follow and assess.

Occasionally heavy rains during the autumn or winter cause freshets with similar results.

(b) *Surveys, Dredging and Other Works by the Department of Public Works*

The Department of Public Works conducts regular surveys of the depth of the ship channel twice a year as far as Port Mann, and four or five times a year in the critical areas. Copies of all sounding charts are sent to the pilots through the Pilotage Authority within a week of completing a survey.

The whole channel up to Port Mann through Sapperton Channel is dredged regularly each year after the freshet to restore normal depths, and special dredging is carried out wherever silting has occurred. Sapperton Channel was deepened to 27 feet in 1961 or 1962. No dredging is done in Port Mann Channel and nothing of consequence is attempted above Port Mann.

The basic reason for constructing the Sapperton Dyke was to divide the flow of the river, thus providing sufficient water for both the Sapperton Channel and the Port Mann Channel. The Dyke also helps to control silting. Recent soundings of Sapperton Channel show that there has been no silting of consequence. It was estimated that it would take three or four months to deepen this channel to thirty feet.

Surveys are also made alongside the berths in the river and the information obtained is passed to all concerned. When it appears that there is not enough water in a certain locality, a restriction is issued and kept in force until the necessary dredging has been completed. For example, if it were found that shoaling had occurred at Fraser Mills, Crown Zellerbach Building Materials Limited would be informed so that they might arrange for the necessary dredging.

Wharf owners are responsible for dredging alongside, e.g., since 1956 Crown Zellerbach Building Materials Limited have been responsible for dredging the total length of their wharf out to a width of 80 feet and also for a 90-foot approach channel. The Department of Public Works does the actual dredging and the Company is charged the full cost of dredging the wharf site and 50% of the cost of dredging the approach channel. In 1959, the Company paid \$6,327.45 for this work; in 1960, \$8,271.18; and in August, 1961 (after the freshet), \$14,887.08.

The Department of Public Works has been carrying out extensive studies in order to improve the so-called "Trifurcation Area", i.e., at the beginning of the delta where the river separates into the North Arm, Annacis Channel and Annieville Channel. Model tests were carried out and public hearings were held to discuss the proposed work. By controlling the water flow and currents, sedimentation, which is now severe in this area, could be reduced to a minimum. The cost of the project was estimated at \$3.9 millions in January 1965. The Department of Public Works believed that the time was coming closer when the project would be economically justified and construction could proceed. The pilots have been kept posted

and consulted. (Report on Proposed Improvements Fraser River Trifurcation Area, New Westminster, B.C., Nov. 1961 and D.P.W. letter dated Jan. 14, 1965, Ex. 1427(v)).

Further information received from D.P.W. dated May 7, 1968, gives the details of developments since that time:

"The Trifurcation Project has been subdivided into three phases. Phase I, which consisted of the structures in the vicinity of the Fraser Surrey Dock, was completed in 1966-67 at a cost of \$575,000.00. Phase II is currently underway and is scheduled for completion by December 31, 1968, at an estimated cost of \$2,450,000.00. This consists of the structures at the entrance to Annacis Channel and along the Annacis Island Sandfill area. Phase III, which consists of the Timberland Rock Mound Structure and the submerged groynes near the Overseas Dock area, is currently scheduled to start in 1969-70 and be completed by May 15, 1970, at an estimated cost of \$1,827,000.00. This would complete the project for a total estimated cost of \$4,852,000.00.

There have been no other substantial capital works done since 1963 to improve or deepen the Fraser River. Annual maintenance dredging has, of course, been continued using one contract and two departmental dredges."

(c) Complaints About Ship Channel

Because ships are increasing in size the ship channel must be constantly improved. For instance, in April, 1961, the New Westminster Pilotage Authority complained to the Federal Government about the situation caused by shoaling at the critical channel bend between buoys 16 and 18 as follows:

"This bend is very acute, requiring an alteration in course of 67 degrees. Over the past several years, the deep-water ship channel in this bend has become increasingly narrow, being reduced by sediment from nearly 1200 feet to the present width of about 500 feet. Today's ships, many of them over 500 feet in length, have their bows and sterns dangerously close to the rock jetty while navigating this bend. The strong current at this point and frequent strong cross winds add to the difficulty. Also, four fish reduction plants operating nearby at Steveston, spew their clouds of steam and smog over the area, and at times reduce visibility to near zero.

The traffic on the river has increased many fold during the past few years, both in deep-sea ships and tug and barge traffic. Also ships have become much larger and many of the barges are as large as small ships. The congestion is particularly bad at the bend as tows are coming in on the flood tide just as outbound deep-draught vessels arrive there at high water."

The Vancouver Chamber of Shipping also wrote to the Department of Transport complaining about the same situation, adding that as a result of the narrowing of the channel the pilots had then recommended that vessels of over 500 feet navigate this area in daylight hours only, and under the most favourable tidal conditions.

These representations were passed by the Department of Transport to the Department of Public Works, which is responsible for maintaining the ship channel, and eventually corrective measures were taken.

Pacific Coast Terminals urged that the ship channel be improved to keep abreast of developments in shipping; they suggested that this could be best accomplished by establishing, as was done in 1946 for the St.

Lawrence River, a *Ship Channel Committee*¹ composed of representatives of the Department of Transport, the Department of Public Works, ship-owners and pilotage groups. The responsibility of the St. Lawrence Committee was to establish, study and recommend the width, depth and other navigational aids necessary to service satisfactorily and efficiently new types of vessels. Pacific Coast Terminals recommended for the Fraser River a study similar to that done for the St. Lawrence because they feel that the ship channel is no longer adequate. They complained against the controlling depth in the river that does not allow vessels to load to their available draught, with a resultant loss of tonnage both to ships and to Fraser River ports. Furthermore, deep draught ships have to wait for the tide to provide enough water to proceed either in or out. They urged that this be improved. They pointed out that the trend is now to larger and longer vessels because of their economy and efficiency in carrying cargo. These vessels are, to a certain extent, of greater draught but not necessarily in proportion to the size of the vessel. They concluded that, in view of this trend, unless the Harbour of New Westminster and its channel are improved, the ports in the area will soon go out of business.

Crown Zellerbach Building Materials Limited also suggested that the channels above the railway bridge, i.e., Sapperton Channel and Port Mann Channel, be deepened to at least the same depth as is available at New Westminster in order to remove the existing draught limitation that adversely affects this area.

The Secretary of the Pilotage Authority reported on May 1, 1968 (Ex. 160) that gradual improvements in the depth of water in the dredged cuts and widening the channel in the bends have allowed larger deeper draught vessels to navigate the channel (Ex. 160).

¹The St. Lawrence Ship Channel Committee 1965 has the following terms of reference:

- "1. The Committee shall coordinate the investigations and research related to proposals for improvement of the St. Lawrence Ship Channel (Lake Ontario to the Gulf of the St. Lawrence) for marine transportation purposes.
2. The Committee shall study the existing and prospective uses of the St. Lawrence River for marine transportation purposes and recommend on the basis of the findings the objectives and design criteria that should govern future ship channel improvements.
3. The Committee shall report with recommendations on the engineering projects determined by the Committee to be necessary to achieve the optimum use of the St. Lawrence River Ship Channel.
4. The Committee shall review and report on proposals by other agencies for works which may affect the use of the St. Lawrence River for marine transportation purposes.
5. The Committee shall prepare and submit a work programme and budget estimate for studies and investigations covering a 5-year period recommended by the Committee. This programme, to be initiated on 1 April 1965, shall be revised each year in the light of circumstances then prevailing."

(3) PRINCIPAL HARBOURS

For administrative purposes all ports and berths on the Fraser River that are visited by deep-sea vessels are included in the New Westminster Harbour as defined in sec. 4 of the New Westminster Harbour Commissioners Act (3-4 Geo. V, c. 158, (Ex. 513)). According to this definition, the harbour extends upstream as far as Pitt River, and downstream as far as the mouth of the Fraser; it includes, *inter alia*, the Port of New Westminster proper, Fraser Mills, Port Mann and Port Steveston, but does not include the seaward end of the North Arm of the Fraser River. Sec. 4 reads:

“For the purpose of this Act the Harbour of New Westminster shall be deemed to extend from a line drawn north and south, astronomically, to each shore of the Fraser River, from a point on the line of average high water mark, on the eastern end of Manson or Douglas Island, known as Point Sebastien and situate in the Fraser river at the mouth of the Pitt river; thence down stream, extending on both sides to the line of average high water mark, to lines drawn across the outlets of the Fraser river into the Gulf of Georgia from point to point at low water mark on each of the points of land forming the said outlets; but not extending further northerly than a point equidistant between the most southerly and the most northerly points of the western shore of Lulu island; and shall also include the adjacent waters of the Gulf of Georgia, upon and over the Sand Heads as far seaward as are from time to time defined by the Governor in Council; but shall not include any portion of the North Arm of the Fraser river west of a line drawn across the said North Arm in continuation southerly of the westerly boundary of the city of New Westminster; and shall also be deemed to include all water front property, water lots, piers, docks, shores and beaches in or along the waters forming as aforesaid the said harbour”.

Throughout the area administered by the Harbour Commissioners there are 16 berths which accommodate deep-sea vessels. Proceeding upriver from Sand Heads these are Canada Rice Mills on Lulu Island some four miles up from Steveston; Dow Chemical Works on Tilbury Island; the Lafarge Cement Company on the north bank, just below Lion Island; Fraser River Elevator No. 4 on the south shore opposite Annieville Dyke; New Westminster with several berths; the Gypsum, Lime and Alabastine Company on Port Mann Channel and across the river on Sapperton Channel; Fraser Mills Berths, which are 1,200 feet long and can accommodate two large vessels simultaneously. There is no deep-sea traffic above Port Mann.

West of Port Mann on Port Mann Channel there is a new development named Surrey Docks where deep-sea vessels can be accommodated, provided the shoaling, which takes place annually as a result of the freshet, is controlled. At that site, shoaling has been known to reduce the depth from 25 to as little as 13 feet. The Harbour Commissioners, who operate Surrey Docks on behalf of the Federal Government, stated in 1963 that they hoped

to obtain approval from the Department of Public Works to maintain one dredge there a few days a week when required.

Some of the berths listed above are not accessible at all stages of the tide—and ships may have to wait at anchor for favourable conditions before berthing.

The Harbour Commissioners have made regulations to control traffic pursuant to sec. 20 of the New Westminster Harbour Commissioners Act. In addition to the regulations regarding fishing vessels, because of the special features of the area, they have modified the regulations for the prevention of collisions at sea, such as reversing the rule of the road for ships proceeding upriver under the railway bridge. (Vide pp. 275-6).

During colonial years the Fraser River was the mainland colony's principal waterway and the City of Queensborough, its capital (later renamed New Westminster) served as the Port of Entry. In the early days of settlement, the lower reaches of the river provided a safe haven for deep-sea sailing vessels which brought in hundreds of pioneers and thousands of gold miners.

The port of Steveston, which is mentioned in the 1919 Robb Commission Report as one of importance, is now part of New Westminster harbour, as described earlier. It is now less important because its approaches and berths are too shallow to accommodate deep-sea vessels. In addition, fewer ocean-going vessels proceed to Fraser Mills area above the railway bridge both because of insufficient depth of water and the obstruction created by the bridge (pp. 274 and ff.).

North Fraser Harbour is also located within the New Westminster Pilotage District. The harbour comprises the navigable waters of the North Arm of the Fraser River from the westerly boundary of the City of New Westminster to the Gulf of Georgia. It is administered by a separate Harbour Commission known as the "North Fraser Harbour Commissioners" (1913, 3-4 Geo. V, c. 162) (Ex. 523). Due to the shallowness of the channel, the North Arm is not used by ocean-going traffic.

(4) AIDS TO NAVIGATION

The maintenance of aids to navigation in the Fraser River is a never-ending task. The ship channel is well marked by buoys, but during the freshet season they are often fouled by drift and carried away or displaced. Hence, the pilots can not always rely on them. When a buoy is displaced or a light fails, the pilots and ship operators are informed. There is no need to issue Notices to Mariners because all the buoys in the Fraser River are readily accessible and remedial action is taken without delay.

When aids to navigation—particularly buoys—are being positioned, there are two local hazards to be reckoned with, i.e., the freshet and tows. Occasionally loose pieces of ice float down the river, but they do not cause damage.

Aids to navigation are constantly being improved. At the time of the Commission's hearing, the District Marine Agent stated that all complaints received by him had either been dealt with or were being attended to.

Although the Minister of Transport is not the Pilotage Authority for the New Westminster District, the Marine Agent of the Department of Transport provides a liaison service by forwarding any requests for improvements to the Department of Public Works, which is responsible for maintaining the ship channel, e.g., the complaints of the pilots and of the Vancouver Chamber of Shipping in 1961 about conditions in the channel bend between buoys 16 and 18. A request by the pilots for the installation of eleven tide gauges along the river was similarly referred to the Department of Public Works. It did not agree that these gauges were necessary because there is a tide gauge at New Westminster, and with the aid of tide tables any pilot can readily determine the state of the tide at any place along the river.

On May 1, 1968, the Secretary of the Pilotage Authority reported a complete reorganization of the buoy system in 1967 with the addition of several lights, shore aids, radar reflectors and day marks which have been of great benefit (Ex. 160).

(5) MARITIME TRAFFIC

Maritime traffic on the Fraser River is congested because of the number and variety of vessels using the restricted channel. In addition to deep-sea vessels, there are tow boats with booms and barges, fishing boats and some coastal ships.

As in the case of the British Columbia Pilotage District (pp. 39 and 40), fishing boats and tows are the principal navigational hazards to deep-sea vessels and the winding, narrow channel accentuates the risks.

Fishing vessels may be encountered anywhere in the District and at any hour, except for a period of two or three months from December to February. There are five species of salmon, each running at different times, according to their season. During these runs, particularly in August and September, the fishing boats concentrate at the mouth of the Fraser.

Fishermen are generally without any experience in large vessels, are not familiar with the customs and rules of navigation and are not conscious of the dangers they create for themselves and others. The only prerequisite to becoming a fisherman is to pay the \$1 fishing licence fee. Fishing boats are about 24 to 28 feet long. Nets used in the river are about 900 feet in length and in the Gulf of Georgia about 1,500 feet. At night, their presence on the river creates an even greater danger because the bends often prevent

both direct long range visual sighting and radar observation. Furthermore, those small wooden craft do not show up well on radar.

To alleviate this hazard the New Westminster Harbour Commissioners state in subsec. 83.2 of their By-laws (P.C. 1961-1770, dated Dec. 7, 1961, (Ex. 513)).

“No gill net shall be cast or allowed to drift in the channel of the Fraser River from the lighthouse at the Sand Heads to the No. 1 wing dam at Lulu Island”.

Subsec. 83.3 adds:

“A gill net that is in any part of the channel of the Fraser River, other than that part referred to in subsection (1), shall, upon signal by a vessel to the operator of the gill net, be removed in such manner as will permit the passage of the vessel”.

After several accidents and near accidents, involving fishing boats which impeded navigation by not keeping clear and by not observing the By-laws, the pilots requested a patrol boat. The Harbour Commissioners supplied a boat which proceeds ahead of ocean-going ships to clear the channel. While this service does not always guarantee a clear passage it has greatly improved traffic conditions. If there are a number of ships arriving or departing together, the patrol boat precedes the first ship to warn fishermen of the traffic to follow. Despite all these regulations, patrols and warnings, accidents and near accidents still occur. However, the situation is now much improved over previous years.

Tugs towing booms, rafts or barges, constitute one of the most serious traffic hazards because of their great length, slow speed, and the fact that they usually cross from one side of the channel to the other. At night, low visibility compounds the danger.

The log rafts that are met in the vicinity of New Westminster generally come from the North Arm of the Fraser River, pass New Westminster and proceed further up the Fraser or enter Pitt River. Other rafts go to Timberland Mills on the south bank and to other storage grounds in numerous locations all along the river. Some log rafts come down river bound for the North Arm. For these there are two particular areas of congestion:

- (a) the swing span of the railway bridge, especially if the tow crosses the channel to use the north span;
- (b) the port of New Westminster which tows regularly pass through as they proceed downriver.

Some tows may be 2,500 feet in length with 400 to 500 feet of towline. Because of their weight and shape, their speed is very low and they must depend on the tide to make progress. When stemming a current they make little headway over the ground and, hence, for long periods they may even appear to be stationary. If this occurs in the harbour area, a ship's departure may be delayed, and on occasion the tug which has been hired to assist the ship must first help the tow in order to clear the way.

Moreover tows do not, and can not, always comply with the rule of the road because, being so unmanoeuvrable, they must keep to one side or the other of the channel depending upon their destination.

At night and in foggy weather, they become a special hazard although they carry a tail-light at the end of the tow, and with rafts of any great width, a light is also shown on each side of the tow. Although tows normally show on radar, they can not always be seen on account of the bends in the river. In daytime, the pilot can see the traffic and observe a tow rounding channel bends at a distance of two or three miles. He can then appreciate what the tug is towing, but at night—when most pilotage assignments are performed—it is difficult to know what is being towed and when the tow will be met, although the masthead lights show the tug has a tow.

(6) NEW WESTMINSTER RAILWAY BRIDGE

The New Westminster railway bridge, also called the Westminster Bridge, is the major obstruction to ships proceeding upriver past New Westminster. It is at all times a serious obstacle for large vessels and, under certain conditions, a hazard for smaller ones as well.

The City of New Westminster was developed under the impact of railway expansion. The Canadian Pacific Railway line into the city was completed in 1885 and the railway bridge was built in 1904, presumably to complete the Great Northern Railway connection with the United States. Significantly, the Panama Canal, which played such an important part in the development of the Pacific Coast of North America, was not opened until 1914, ten years after the completion of the railway bridge. However, had it opened some ten years earlier, large deep-sea ships would have made more use of B.C. coastal ports, and their dimensions would, no doubt, have discouraged the construction of a bridge of the size and limitations of the existing railway bridge.

The railway bridge is situated at the east end of the Port of New Westminster, some 200 feet above the Pattullo Highway Bridge, and some 2,000 feet below City Bank, which creates a division between Sapperton Channel on the north and Port Mann Channel on the south. The railway bridge has a centre pier which supports a swing span to give navigational access to the upper reaches of the Fraser where, *inter alia*, the Crown Zellerbach Building Materials Limited mill is located at Fraser Mills. The swing span when open provides a south draw with a horizontal surface width of 170 feet between piers and a north draw with a surface width of 171 feet, 5 inches, which is reduced by the slope of the banks of the channel to 160-167 feet.

The Pattullo Bridge has a vertical clearance of 146 feet above freshet level and a horizontal clearance of 400 feet. It presents no navigational problems.

About 2,000 feet above the railway bridge (i.e., between the bridge and the Middle Ground Buoy) the river forks around City Bank into Sapperton Channel and Port Mann Channel. Sapperton Channel is only 300 feet in width with a depth of 26 feet at low tide. The river then curves from north-east to east, the north channel being the more accentuated part of the bend around City Bank. The downstream current flowing from the north channel crosses the bridge at an angle with the ship channel, causing a set to the south.

The tidal range at the bridge, except during the freshet period, is between 5 and 6 feet. The depth of water ranges from 60 feet near the north pier to 23 feet near the south pier.

In non-freshet periods, the current reverses with the tide from a 4½ knot ebb current to a 2½ to 3½ knot flood current. The duration of the ebb current is approximately nine hours. Furthermore, because the strong flood tides occur at night, there is often no slack water period during daylight. During strong freshets, although the tide is still felt at the bridge, the current then never reverses but keeps ebbing at a speed that may reach 7½ or 8 knots with no slack water period, but its velocity is least at high water and greatest at low water.

The currents were studied to establish their pattern and velocity. A survey carried out June 21, 1955, (during the freshet) showed the following velocities:

	<i>Depth</i>	<i>Feet per Second</i>
(a)	Surface	4.5
(b)	10 feet	6.9
(c)	15 feet	7.3

In addition, the survey proved that these currents did not run parallel to each other (Ex. 171).

Because the draws under the railway bridge are so narrow, one of the pilot's main problems is his ability or otherwise to see through the bridge structure. It is much easier to transit the bridge in a small ship when the pilot can see the sides of the draw and any traffic beyond, but difficulties increase with size of the vessel. Pilot Spier stated that on one occasion when he was in a large ship he lost sight of the bridge when only two thousand feet away, and that a pilot has to take a ship of that size through "on an educated guess". This is particularly true of bridge aft vessels and also of conventional ships that are not well trimmed.

On account of the angle of the swing span, vessels bound for Fraser Mills proceed upstream at slack high water or during early ebb tide through the north draw of the swing span on the port side of the main channel in order to turn into Sapperton Channel. If they took the south draw on the starboard side of the channel and followed the normal rule of the road, they would be unable to cross the channel against the downstream current

in the limited space between the railway bridge and City Bank. This departure from the rule of the road is ordered by sec. 66 of the New Westminster Harbour Commissioners' By-laws. It has been in force for many years. As a result, ships bound for Sapperton Channel must cross from the starboard to the port side of the channel at Annieville Dyke, transit the bridge through the draw lying to the port side of the ship, alter 35° to port as soon as clear in order to pass Middle Ground Buoy, return to the normal rule of the road by keeping to the starboard side of Sapperton Channel for two miles up to Fraser Mills and then cross to the north shore to berth port side to on the slack or ebbing tide and current.

The distance from the railway bridge to Middle Ground Buoy was stated as approximately 1,800 feet² from the centre of the draw to the buoy. Hence, the pilots usually start altering to port while still in the draw, to be certain they clear the buoy and keep any outflowing current on the starboard bow.

The pilots seldom proceed upstream at slack water and prefer stemming the early ebb tide and current which gives them better control. Pilot H. L. Gilley was of the opinion that there is enough room between the railway bridge and Middle Ground Buoy to permit a 500-foot ship to make a sharp alteration of course in safety.

Ships outbound from Fraser Mills (where they are normally berthed port side to) first proceed upstream past Sapperton Dyke nearly as far as Port Mann, then turn, and take the Port Mann Channel downstream. They keep to mid-channel unless they meet traffic, in which case they use the port side of the channel to pass.

Depending on the state of the tide, the pilots try to place their ships in a favourable position when four or five ship lengths above the bridge. If an ebb tide is flowing, they position their ship to the south of the span to the extent necessary to allow for the prevailing set to the north. There is not time to line up with the bridge since the ship is on a continual swing to port and is not steadied until actually in the draw. In a strong ebb, a four to five hundred foot ship will take only forty or fifty seconds to clear the bridge. During a flood tide they can slow down and line up with the bridge two or three ship lengths away. This navigational hazard is further compounded by hydraulic action if ships are closer to one pier than the other.

During ebb tide the pilots allow for the definite set to the north in the bridge approaches by manoeuvring so that the bow just clears the pier on the port side and allows the stern to clear the protection work on the starboard side. It is a question of judging allowance for the northerly set—in order to do so they must head almost directly for the pier on the south side. This problem is aggravated during the freshet season.

² The actual measurement on Canadian Hydrographic Service Chart No. 3431 is 2,100 feet.

The pilots estimate that it takes an hour to reach the railway bridge from Fraser Mills on an ebb tide.

According to Harbour Regulations, "the draw that lies to the port side of the vessel" is to be used when transiting the railway bridge, but under certain circumstances this is not possible. For example, at times a ship berthed starboard side to at Fraser Mills due to the state of the tide can not be turned. In this event, with the Harbour Master's approval the north draw (or the draw lying to the starboard side of the vessel) may be used for the downstream passage.

The pilots must assess the most favourable state of tide for outward trips. With a heavily laden ship they choose the time of slackest water or any time the tide is flooding during daylight hours. One of the difficulties is uncertainty whether there will be slack water on any particular day. During the freshet there are no slack water periods and at other times there is frequently no slack water during daylight.

During the freshet a conventional ship can be brought up to Fraser Mills. An upstream passage presents no problem because a vessel proceeding at full speed against the current can be controlled but a downstream passage is hazardous and the pilots wait for the slowest ebb current.

The railway bridge restricts not only deep-sea vessels navigated by pilots but also tugs, barges and hulks.

Captain J. A. Taylor, a tugboat Master who has been towing barges and hulks through the bridge for many years and is thoroughly familiar with the problems it causes, explained to the Commission that, because the draws are so narrow, the main problem is to line the tow up before transit. The turbulence of the currents at the bridge makes it necessary to proceed only at slack water and in daylight. As much as twenty-four hours may be lost waiting for these conditions.

All difficulties are compounded by the freshet. As a result of accidents it has been found that during this period the only safe method of taking tows downriver through the bridge is to proceed downstream stern first stemming the current. (This operation is illustrated in a series of photographs, Ex. 10, in the Crown Zellerbach Building Materials Limited brief, Ex. 165). Above the bridge, the lead tug turns the tow which approaches the draw stern first, the towing tug maintaining control by heading into the current and dropping down at reduced speed. Additional tugs line up the tow, guide it into the draw and counter the prevailing set. When the bridge has been passed the tow is turned around and normal towing position resumed. The number of tugs required depends on the state of the freshet. The lead tug is usually of 1,200 or 1,600 horsepower.

(a) *History of the Railway Bridge*

As long ago as 1889, objections were raised to the proposed construction of the swing-span railway bridge on the grounds that it would be an obstacle to navigation: on March 18, 1889, the Ross MacLaren Mills (now Crown Zellerbach Building Materials Limited) objected to the planned bridge over the Fraser River because it would hinder their shipping.

Nevertheless, the bridge was built in 1904 and it is assumed that at that time the disadvantages were deemed to be outweighed by the advantages.

When the Pattullo Bridge was in the planning stages, the question of the swing-span railway bridge and its hazards to navigation were again fully studied. In 1934, a public hearing was held under the Navigable Waters Protection Act (1927 R.S.C., C.140, sec. 7) regarding the proposed construction of a highway bridge. The railway bridge then accommodated road traffic on a second level which since had proven inadequate for the increasing traffic. At that hearing, evidence was given by marine interests to the effect that the construction of the new bridge in the vicinity of the railway bridge would increase navigational difficulties. The debates are summed up in Order in Council P.C. 153, dated January 24, 1936, passed pursuant to the Act which approved the erection of the Pattullo Bridge (Ex. 164). The question of safe navigation was one of the main topics including the situation existing at the time, what it would be after the erection of the bridge and what remedial action could be taken.

It was fully recognized that the railway bridge was impeding navigation and it was also unanimously agreed that the new Pattullo highway bridge should not be erected 200 feet upstream from it, because the currents would make transits of the south draw of the railway bridge extremely hazardous. Therefore, this proposal was withdrawn.

It was conceded, however, that no difficulty would be experienced in passing downstream through the south draw, if the new highway bridge were built below the railway bridge and the senior pilot at the time expressed the opinion that it would be safe to take deep-sea vessels upriver through the south draw.

Notice was taken of the reversal of the rule of the road, effected by the By-laws of the New Westminster Harbour Commissioners.

Moreover, it was recognized that the continued existence of the railway bridge in the vicinity of the Pattullo Bridge would add to the navigational hazards of the area.

In 1936, the Chief Engineer of the Department of Public Works was faced with the problem of deciding between the disadvantages which the new bridge would cause by increasing navigational hazards and the advantages of meeting the demands of highway traffic crossing the Fraser River. On his recommendation, which was concurred in by his Minister and Deputy

Minister, the Government of the day, on January 24, 1936, approved the construction of the highway bridge (P.C. 153 dated Jan. 24, 1936 (Ex. 164)).

In order to cause the least possible obstruction to navigation it was decided to erect the new bridge downstream and as close as possible to the railway bridge (200 feet).

The Province of British Columbia was given two alternatives:

- (a) to replace the swing span of the railway bridge with a vertical lift span of not less than 250 feet horizontal clearance and 145 feet vertical clearance;
- (b) to transfer its title to the railway bridge to the Federal Minister of Public Works after removing the upper portion of the railway bridge used for highway traffic.

The latter alternative had been recommended at the public hearing on the ground that if the Federal Government owned the bridge it would be in a better position to deal with the whole situation because it already controlled Canadian National Railways, and was responsible by law for the safety of navigation.

In 1939, the Province adopted the second alternative, removed the upper portion of the bridge and transferred title to the Federal Government, and hence did not install the lift span. The Pattullo Bridge was erected by the Province in the approved location.

The Memorandum of Agreement for transfer of the Provincial title to the Federal Government is dated October 26, 1939 (Ex. 193). The Province thereby transferred to the Dominion all rights, title and interest in, and to, the old Fraser River bridge and its south approach and gave a right of way on the property which the railway traversed on the north approach.

By Clause 13 of the Agreement, a waiting period of ten years was introduced during which it was to be determined whether a lift span could actually be justified. During those ten years, however, the revenue derived from the use of the bridge by the railway companies would be kept in a Trust Fund to be applied to the cost of the alteration. It was further provided that, if at the end of that period the alteration had not been effected, the Dominion Government would retain in the Trust Fund only the sum necessary to constitute a reserve towards the maintenance of the bridge and the estimated cost of its ultimate removal, the balance to be returned to the Provincial Government. To date, the situation remains unchanged.

At the public hearings on the Pattullo Bridge it was stressed that the railway bridge was a navigational hazard and that plans should be made for its removal. Since then, larger ships have been using the river and the

original navigational dangers created by the bridge have greatly increased. During the Second World War, many 10,000-ton cargo ships with engines and bridge amidships were constructed but, since then, much larger ones have appeared, 90% with engines and bridge aft. According to the Vancouver Chamber of Shipping, almost all the deep-sea vessels visiting the British Columbia coast are of this type and it is predicted that shortly no other type will be built for bulk and tramp trade. To the Chamber's knowledge, no conventional ships are being built now for the tramp trade.

It was pointed out that local shipping agents have no control over the types of ships that are available to carry cargo.

Statistics obtained by the New Westminster Harbour Commissioners from an unnamed British Columbia operator indicated the trend to bridge aft ships: between 1958 and 1962, the number of ships on charter rose in number from 83 to 111, and of these the number of bridge aft ships were respectively 1 and 31, i.e., an increase from 1.2% to 27.9%.

The main reason for the trend to bridge aft ships is the elimination of a large section of the shaft line and shaft tunnel. This reduces building costs and increases cargo capacity. These vessels are also very practical for loading and discharging many types of bulk cargo, especially packaged lumber which can be handled and stowed expeditiously in the large square holds, and without loss of space. In a conventional ship, on the other hand, the lumber has to be loaded and unloaded piece by piece to take advantage of all available space. It is also easier to handle cargo in a bridge aft ship because the hatches are spaced side by side and the cargo gear and equipment are all on the one deck. This results in a true reduction in the loading and discharging task.

(b) Accidents at the Railway Bridge

There have been many mishaps but from 1934 to July 2, 1968, no casualty involving a vessel with a pilot on board (vide p. 370).

Pilot H. L. Gilley, who had a record of some 800 transits through the bridge, stated that he had never made one to his own satisfaction, although he has never had an accident. On one occasion, around 1947, he nearly had a mishap with a Park ship commanded by Captain J. E. Clayton, (the Port Manager at the time of the Commission's hearing). He was proceeding from Fraser Mills with a fairly strong downstream current and when about 1,500 feet east of the bridge he found that the ship did not appear to answer the helm, although it was hard over, and that he was heading for the protection work of the swing-span. It was ten seconds later before the ship answered the port helm. Thereupon he ordered "amid-ship" and "steady" but the ship suddenly headed for the south pier. He then ordered starboard helm and the ship zig-zagged through the draw. It

was later found that the ship was drawing a foot more water than was available due to shoaling at that spot, and consequently was not steering properly.

In May, 1957, the bridge aft vessel *Kavadoro*, length 521 feet 5 inches, beam 62 feet 6 inches, was proceeding downstream with an ebb tide during the freshet season. The pilot was unable to position the ship to transit the south draw properly, and the starboard counter scraped the protection work of the swing span.

In June, 1957, a 380-foot Fraser Mills barge, *en route* to Ocean Falls, crashed into the bridge and disrupted railway services. Nineteen tugs, including two powerful ocean-going tugs, were required to move the barge against the fast current (photograph and newspaper clipping, Ex. 187).

The Master of the M.V. *Vaasa Leader*, length 487 feet, beam 62 feet, engines and bridge aft, propelled by Stork diesel engines, single propeller, wrote a letter to the pilots on February 27, 1963, which the pilots filed as one of their exhibits in support of their argument against bridge aft vessels (Ex. 178). It reads in part:

"In my opinion the passage through the swing-span is too dangerous with a ship of this type. The reasons are many but the restricted vision from the bridge aft is one of the greatest concern. We must also remember that passage through the span must be carried out under half to full power in order to have full steering power on the rudder. The smallest misunderstanding between the pilot, master, mate and quartermaster will have disastrous results under such circumstances. Also keeping in mind that coming down river the ship will be running with the tide and if the line-up for the passage is not successful at the first try, there is no returning and no stopping possible. In view of my experience I would refuse an order to let my present ship pass the span, only in case of emergency would such an order be considered and even then only with the assistance of two powerful tugs. I understand that such tugs are at the present moment not available at New Westminster."

As pointed out at the hearing, misunderstanding between the pilot and the officers which might lead to a disastrous result is not a problem that is peculiar to bridge aft ships and may occur in any ship.

The Master of the *Vaasa Leader* obviously referred to freshet time because otherwise he would not have departed with a strong current aft; therefore, the situation described in his letter is not a normal transit.

Between 1950 and 1965, there have been eighteen accidents at the railway bridge costing \$96,638.05 in repairs to the bridge (Ex. 1171). There are no figures available to show cost of repairs to the vessels involved.

(c) *Safety Regulations*

Navigational hazards are of three kinds. The first group consists of temporary difficulties (such as traffic or adverse weather) on which the pilots must take action according to their best judgment. The second group is composed of semi-permanent hazards (such as silting) of which advice is pro-

mulgated by Notices to Mariners and orders issued by the Harbour Commissioners; these notices are cancelled as soon as the danger has been removed. The third group comprises absolute restrictions (such as the depth, width and meanders of the ship channel), which can not be altered, except by material changes, but which the pilots can readily appraise.

The absolute restrictions have always existed to a greater or lesser extent. For instance, when the channel was only fifteen feet deep, only shallow-draught vessels were allowed and when the channel was deepened vessels were still limited in draught to the new depth. At that time, most vessels could be accommodated but with the trend to larger and deeper ones this is now less often the case. Therefore, perforce vessels are again limited as to size and New Westminster is becoming inaccessible to a substantial percentage of normal ocean maritime traffic.

Other restrictions are caused by tides, currents or other regularly recurring events, such as the freshet—situations that are well known to the pilots. Knowledge of them is part of the pilotage service and, as their occurrence is ascertainable, pilots can find out in advance what course of action should be taken.

Since these are known and recurring conditions, it is in the interest of both safety and efficiency that they be carefully investigated and that all pilots be informed of the existing situation and what procedures should be followed. By studying these problems together the pilots benefit from their mutual experience and thus develop a more efficient pilotage service.

A great many of the existing safety regulations were drawn up as a result of the pilots' recommendations which were based upon such studies and have been in effect for many years, e.g., the regulation which prohibits transiting the railway bridge at night. Although the rules were not in writing at the time, they were known and agreed to by the pilots based on their expert knowledge by experience as to how, when, and where the navigation of a given type of vessel could safely be performed.

The regulations are modified from time to time as conditions improve or deteriorate, or as new experience is gained by the pilots and new methods developed. For instance, the restrictions on bridge aft ships came after the *Kavadoro* incident in May, 1957, but prior to that there were no restrictions on bridge aft vessels as such. At the time, the pilots as a group reviewed the circumstances, appraised the difficulties and came to the conclusion that it was not safe to transit the railway bridge with a vessel of that type longer than 375 feet.

Shortly before the Commission's public hearing in March, 1963, the pilots had changed their views against transiting the railway bridge with downbound vessels during the freshet. They came to the conclusion that it could be safely done even when the gauge at Mission City registers from ten to twenty feet, although neither flood current nor slack water prevail. The

transit was made at the height of the flood tide, taking what they called a calculated risk. This was not permitted when the safety regulations were first drawn up, but further experience and studies indicated that it could be done. However, before attempting the transit a full discussion was held between the pilots and the Master of the ship concerned. As will be seen later, the restrictions on bridge aft ships at the railway bridge have been drastically reduced since that time.

Until 1961, these safety regulations were not in writing. They had been drawn up and made effective without prior notice, thus causing the shipping interests embarrassment and some financial losses. In 1961, the Vancouver Chamber of Shipping asked the pilots to publish the regulations for the guidance of the operators so that they might plan correctly and avoid losses and delays arising from restrictions unknown to them.

A meeting, convened by the Pilotage Authority, was held on March 1, 1961, between them and the Vancouver Chamber of Shipping to study the pilotage rules followed by the pilots. Some minor changes were effected at the suggestion of the Chamber of Shipping. Following this meeting, the rules were put in writing by the pilots after having been unanimously approved by them at a special meeting convened for that purpose and were referred to the Authority through the Pilots' Committee. They were formally approved by the Pilotage Authority on March 28. On April 21, 1961, they were sent to the Vancouver Chamber of Shipping. These rules were to remain unchanged up to February 1966.

They read as follows (Ex. 160):

"NEW WESTMINSTER DISTRICT PILOTAGE
April, 1961

*Suggested Recommendations for the Safe Conduct of Vessels Navigating
the Fraser River*

1. General

- (a) All navigation on the River is contingent on favourable tidal and weather conditions.
- (b) All drafts given are subject to change at any time due to silting of the channels.

2. Main River Channel

- (a) Maximum draft allowed shall be 28 feet 6 inches on a tide of at least 12 feet at Sandheads.
- (b) Outbound vessels with a draft of 24 feet or more shall not arrive at Steveston Cut on a falling tide.
- (c) Large vessels with bridge aft shall navigate the River in daylight only and it is recommended that they have their derricks down and be in best possible trim.
- (d) It is recommended that the length of ships which can safely navigate the River between Sandheads and New Westminster at the present time, be limited to 600 feet and that such ships navigate with best tidal conditions and as near as possible in daylight only.

3. Westminster Railway Bridge
 - (a) Vessels shall traverse the Bridge in daylight only.
 - (b) Vessels inbound shall proceed on ebb tide or slack water.
 - (c) Vessels outbound shall proceed, as near as practical, on flood tide or slack water.
 - (d) Maximum draft inbound to Fraser Mills shall be 21 feet (unofficially revised to 24 feet).
 - (e) Maximum draft outbound from Fraser Mills shall be 24 feet (unofficially revised to 25 feet).
 - (f) Maximum draft inbound to Gypsum Plant shall be 25 feet.
 - (g) Maximum length of vessels through the Bridge shall be 525 feet.
 - (h) Large vessels with bridge aft shall not be taken through the Bridge, Knot³ type vessels excepted (375).
4. Pacific Coast Terminals
 - (a) Ship proceeding into berth 1-A, port-side-to, past a ship at berth 1-B, shall have a maximum draft of 18 feet.
 - (b) Ship proceeding into berth 1-B, port-side-to, past a ship at berth 1-C, shall have a maximum draft of 22 feet.
 - (c) Ship leaving berth 1-A, starboard-side-to, past a ship at berth 1-B, shall have a maximum draft of 24 feet.
 - (d) Ship leaving berth 1-B, starboard-side-to, past a ship at berth 1-C, shall have a maximum draft of 26 feet."

These were the safety regulations as they stood at the time of this Commission's public hearing in 1963. They gave rise to a hotly contested debate which is summed up later. For the modification that occurred after the public hearings and how these safety rules now stand, reference is made to pp. 300 and ff.

Although they are called recommendations, the word "shall" which is mandatory is used throughout (except in recommendation 2(d) regarding the main river channel). However, they are not mandatory because they are really pilots' decisions and not authority's decisions in a field that belongs exclusively to the pilots, i.e., opinions on the safe navigation of vessels in certain specific circumstances. Therefore, even though they were approved by the Pilotage Authority, they are not regulations. (Vide also p. 287). A pilot might not always abide by them and still not be subject to discipline, but if he were involved in an accident, the onus would be on him to establish that he did not take an unnecessary risk. Therefore, all the pilots are likely to adhere to them and Pilot Spier added that there would be chaos in their group if one or two of them decided not to abide by them. Even if one succeeded in doing so, he added, "I don't know what kind of welcome he would get from the committee". The pilots would be dissatisfied as a group because these recommendations were made for safety of navigation.

³ The expression "Knot-type size vessels" used in these so-called regulations refers to some thirty-six ships built in the U.S.A. during World War II bearing names with "knot" as their last syllable, such as *Acornknot*, *Brightknot* and *Ringknot*. All were similarly built with their bridge and engine room aft, overall length 339 feet, gross tonnage 3,805.

They are safety rules by which the pilots govern themselves. There is no doubt that these rules have a limiting effect on ocean-going traffic on the Fraser River. These ships constitute most, if not all, of the pilots' assignments and, hence, are the source of their earnings. The Masters of these ships are most likely to follow the pilots' advice.

Pilot Spier added that if he were requested to pilot a bridge aft ship through the railway bridge contrary to the safety recommendations, he would refuse. On the other hand, if the Master wished to proceed against his advice, he would ask to be relieved of all responsibility and would then give the Master all the assistance he could.

The shipping interests are greatly affected by these recommendations. A company entering the charter market is at a competitive disadvantage if it can not avail itself of current markets but must restrict chartering to specific types of vessels.

Most of the British Columbia charters are fixed on the London Exchange, (technically known as the Baltic Exchange), some on the New York Exchange and a few locally. Eighty-five to ninety-five per cent of the tramp steamers trading on the British Columbia coast are fixed on the Baltic Exchange. The usual procedure is for the prospective charterer in Vancouver to cable his broker on the Exchange, saying he wants a ship of a certain size for a certain date. Then the owners of the vessel, who also have their representatives on the Exchange, discuss the requirement with the agent and come to an agreement.

Nowadays, the vessels available are more and more of the bridge aft type, primarily because they carry more cargo. If restrictions are placed on the type of vessel, the whole process of the free competitive exchange of rates, offers and acceptance is upset and the prospective charterer may find himself at a distinct disadvantage if a certain type of vessel is excluded.

Some of these rules may be questionable, however, because they must be considered in relation to the skill of the individual pilot. An assignment that may be risky for a new pilot may be routine for one with experience. In this event, it might be questioned whether the safety margin decided by the group was not calculated on the basis of the ability of the less skilful pilot. A pilot's skill may also be increased by new methods and aids.

The opinion was expressed, therefore, that all parties concerned, i.e., shipping interests, industry and harbour authorities, should be given the opportunity to become acquainted with the situation and with the pilots' reasoning and also to bring additional expert evidence in order to enable the Pilotage Authority either to confirm the pilots' decision, or to increase the efficiency of the pilotage service by improving the pilots' knowledge, and thus their skill.

The Vancouver Chamber of Shipping complained that in the past they had not been consulted by the local Pilotage Authority about changes in the rules and, if changes were made with the knowledge of their sub-agents, the latter had been negligent in not informing their principals.

However, the Chamber admitted that one of the Pilotage Authority members, Mr. H. M. Craig, is also a member of the Chamber of Shipping. He attends all the meetings of the Chamber of Shipping and has access to the records of both organizations.

It appears from the evidence that the Vancouver Chamber of Shipping had not been consulted when the pilots decided not to take any vessel through the bridge at night, and also in 1957, after the *Kavadoro* incident, when they decided not to take bridge aft ships over 375 feet in length. By the time the Chamber was informed, these decisions were, to all intents and purposes, regulations.

The Chamber represents companies and agents, and decisions of this nature taken without their knowledge are likely to embarrass their members on account of their commitments, contracts and ship schedules. One of their members had a bridge aft ship scheduled to go up the Fraser River to load at Fraser Mills (such arrangements are made weeks in advance) but the restrictions on this type of vessel cost that company a considerable sum of money because they had to alter their commitments, and finally they had to barge the lumber down.

The Chamber also pointed out that decisions of this sort, made without prior notice, are bound to upset the arrangements made for rotation of ports. This could be quite disastrous from the point of view of the operators and charterers. With the F.I.O. type of lumber charter, vessels have six to eight loading berths at various ports and work in circles following one another. When one vessel clears Chemainus, for instance, the next one moves in, and when the first one clears Nanaimo the next one follows, and so on. When such a circle is broken, it upsets the schedule not only of the operator but also all others engaged in the operation, with resultant extra costs.

The Vancouver Chamber of Shipping recommended that all interested parties should be consulted before any changes are made in the regulations.

The Chamber also complained that at the time of the Commission's hearing the shipping interests had no recourse and no way of appealing if the Pilotage Authority was unwilling to discuss changes.

It was acknowledged, however, that the operators had been able to hold discussions with the Pilotage Authority and that these had resulted in some amendments to the safety rules. When the Vancouver Chamber of Shipping protested in 1961, most of the rules established by the pilots had been in force for many years and the restrictions against bridge aft ships transiting the railway bridge had been in effect since the *Kavadoro* incident in 1957. As a result of the protest the Pilotage Authority convened a meeting of the

pilots and the shipping interests at which the reasons for the rules were studied. After some minor changes, the safety recommendations were put in writing, approved by the Authority and, for the first time, made available to the shipping authorities in written form.

Subsequently, the Vancouver Chamber of Shipping complained to the Harbour Master against some of the restrictions placed on traffic in the harbour by the pilots. The Harbour Master obtained a copy of the safety rules from the pilots and, after having studied them, wrote on May 15, 1961, to the Pilotage Authority conveying the complaints he had received from the Vancouver Chamber of Shipping. Their concern, he added, was shared by the Harbour Commissioners because in fact and practice the safety recommendations were mandatory with regard to navigation on the Fraser River, thus infringing the authority of the Harbour Commissioners, and because any such regulations, if needed, should be passed under the Harbour Commissioners' authority. The Harbour Master also pointed out that these recommendations were adversely affecting the harbour and, in order to study the situation, he requested that the reasons for the various recommendations be provided to the Harbour Authorities (Ex. 180). If the pilots' rules were regarded as regulations, they would be, in fact, contrary to subsec. 20 (a) of the New Westminster Harbour Commissioners Act. Whether they are regulations is not the point because the Pilotage Authority is also a regulation-making authority. The regulations of both the Harbour Commissioners and the Pilotage Authority are valid provided they are within the terms of the delegation of legislative powers. These rules, however, are not regulations because nowhere in the Canada Shipping Act is the Pilotage Authority empowered to deal by regulations with the question of safety. These rules are not a direct restriction on maritime traffic in the area: any vessel, whatever its size and draught, may proceed at any time, anywhere, even transit the bridge at feshet time. The sole effect of the safety rules is that if the pilots are consulted, they will advise against any navigation prohibited by, or recommended against in, the rules and, on the ground of safety, will decline to take the responsibility for such navigation. The real question is whether an effective recourse exists against abusively restrictive rules so made by the pilots.

The Harbour Master's letter resulted in a meeting between the Harbour Commissioners, the Pilotage Authority, the Pilots' Committee and the Harbour Master, which was held on January 16, 1962.

The Chairman of the Harbour Commissioners expressed their great concern over the steady decline in shipping to and from Fraser Mills and also over the restrictions placed on navigation in this area by the Pilotage Authority. The Chairman of the Pilotage Authority reminded the meeting that most of the safety regulations had been in effect for a long time and had been put in writing at the request of the Chamber of Shipping with

no thought of going over the head of the Harbour Commissioners whom they recognized as the administrative authority on the river. He pointed out the safety recommendations had been made on the basis of years of experience.

The pilots and the Pilotage Authority agreed to review all the safety recommendations in an effort to improve the situation. They also agreed that any proposed future regulations or changes would be submitted to the Harbour Commissioners before being made public.

On February 16, 1962, the Pilotage Authority wrote to the Harbour Commissioners that some of the problems raised at the meeting had been considered by the pilots and that some of the regulations were being modified. In view of the improved width of the channel between buoys 16 to 18, they were of the opinion that large bridge aft vessels could now safely navigate the river between Sand Heads and New Westminster during the hours of darkness, provided the derricks were lowered, the vessel was trimmed to allow for proper visibility and night navigation was left entirely at the discretion of the pilot. However, any deterioration in the improved conditions would necessitate daylight navigation only.

On April 17, 1962, the Secretary of the Pilotage District answered a query from the Harbour Master, dated March 22, concerning navigation with bridge aft ships through the railway bridge. He informed the Harbour Master that the Pilotage Authority had again carefully examined the problem with the pilots and that there was no change in the situation: "they can not justify taking a multi-million dollar vessel through the bridge knowing there is a great risk of accident", and he added:

"The Commissioners have instructed me to state that they have complete confidence in the judgment and ability of the pilots, who are responsible for the safe navigation of all ships in the Fraser River, and see no need for an inquiry by the Department of Transport" (Ex. 186).

There were no further developments until the Port Manager gained the impression that Crown Zellerbach Building Materials Limited was planning to transport lumber to Vancouver by truck with a consequent loss of shipping to New Westminster. With this in mind he wrote to the pilots October 31, 1962, suggesting various methods whereby all types of ships could transit the railway bridge. He stated the Harbour Commissioners took such a serious view of the matter that they were prepared, without prejudice, to consider the merits of subsidizing either the pilotage service or an assisting tug service, or both, if necessary, to ensure service to Fraser Mills.

Representatives of the Department of Transport stated that this dispute is an internal matter between the pilots and the Pilotage Authority. When the restrictions on transiting the railway bridge were brought to the Department's attention by its Aids to Navigation, Marine Works Branch, the Pilotage Authority was asked to elucidate. A letter dated August 31,

1962, from the Secretary of the Pilotage Authority stated that the main reason for the decrease in the number of passages through the bridge in 1960 and 1961 could be directly attributed to the increased shipping of packaged lumber in large bridge aft ships; that the ships which had been piloted to Fraser Mills were conventional vessels 325 to 525 feet in length with the bridge amidships; and that the risk of accident was greater with larger vessels because when inbound they had to make an abrupt alteration to port immediately after clearing the bridge and then a reverse turn to starboard into the narrow Sapperton Channel. The letter continued:

“About five years ago, when the large bridge aft vessels first appeared as lumber carriers from this coast, one was taken above the bridge. However, much difficulty was encountered. It was impossible to see properly to line up the narrow bridge opening or to manoeuvre the bends in the narrow channel and the vessel grazed the centre pier of the bridge. As a consequence, the pilots agreed that it was mandatory on them to recommend that these large bridge aft vessels should not be taken through the New Westminster Railway Bridge. Although there has been a big drop in the number of vessels going above the bridge, it is impossible to estimate the number that did not go because of the restriction on the bridge aft type.”

At the time of the Commission's hearing this was the only information the Department had. No action was being taken because the Department did not consider the matter came within its jurisdiction.

The most contentious points in the Safety Regulations were created by two factors: the advent of bridge aft ships and the restrictions caused by the railway bridge. As stated before, the main difficulties a pilot has with bridge aft ships are (a) his vision is obscured, (b) he is not on the pivot point of the ship and (c) a conning position in the stern of a ship provides nothing aft which he can use as a guide.⁴

From the wheelhouse of a bridge aft ship visibility is comparable to that of a conventional ship and is greater from the wings because the bridge is generally built higher to contain the required services and accommodation. The Port Manager demonstrated this fact using the profiles of the bridge aft M.S. *Fenix* and the conventional M.S. *Brevik*. When the lines of sight from the navigating bridge deck extended to the ship's head were compared it was shown that, provided both ships were properly trimmed, the line of sight of the *Fenix* was lower and better for pilotage purposes. However, ships with the bridge amidships have better visibility because it is less obstructed by derricks and other structures.

Pilot H. L. Gilley stated that he could transit the bridge in a bridge aft ship even if his vision was partly obscured but he and the pilots as a group felt it was not in the best interests of the operators to make the attempt. He would hesitate because of the *Kavadoro* incident in 1957—a mishap which

⁴ The pilots also found a forward conning position impractical when M.V. *Tiha*, 525 feet in length, 10,639 G.R.T., with a conning platform right forward on the forecastle head, went up through the railway bridge August 22, 1964, drawing 17 feet and came down August 24, drawing 19 feet (Ex. 1427 (m)) (Vide p. 292).

he understood because he had previously handled the same type of vessel. He agreed, however, that the pilots would not hesitate with a ship of the same length but with the bridge amidships because it made a great difference to them to have a hundred feet of deck aft of the wheelhouse. Pilot Gilley felt that he could transit the bridge successfully nine times out of ten in a bridge aft ship, but the tenth time there might be a bad accident which would not be in the interest of safe navigation.

This restriction on bridge aft ships is only a recommendation but Captain Gilley stated that if the Master of such a ship insisted on going up to Fraser Mills against his advice he would ask the Master to disembark him first. Captain Spier did not go that far, he stated that he would let the Master make the transit and would advise him what course to steer, what speed to proceed at and what manoeuvres to perform, but he would not take charge unless the Master signed a release. In no case, however, would he leave the ship if she was under way.

Captain John Clayton, the Port Manager and holder of a Master's foreign-going certificate who had had three years' experience of transiting the railway bridge in a forty-eight foot vessel and who had also made the passage with the aid of a pilot when he was Master of a Park ship, expressed the opinion that the railway bridge, despite all these hazards and dangers, is navigable with a bridge aft ship as well as with a conventional ship. He added that it is less hazardous to take a bridge aft ship up to Fraser Mills against a slight ebb tide than to bring a conventional ship out of Fraser Mills during freshet time with the Mission City gauge reading 20 feet and possibly a 6-knot following current. In his opinion, the transit is practical and it should be done during the nine months of the year when there is no freshet to contend with. Then the pilots have the assistance of slack water or a slight ebb tide going up or the reverse going down, i.e., slack water and slight flood tide. They could transit at a speed of 3 knots and if there were any collision the possibility of damage would be greatly reduced.

The Harbour Commissioners had written to various authorities "to obtain a cross-section of opinion" about "navigational conditions in confined waters of ships with the bridge and engine aft" and also to ascertain "if navigational restrictions are general to this class of vessel in other ports". (Ex. 194).

The Port Manager tabled as part of Exhibit 166 a reply dated December 28, 1961, from Sir R. Ropner and Co., (Management) Ltd., of Darlington, England, which stated that they were not aware of any port in the world other than New Westminster where pilots refused to take charge of bridge aft vessels, and experience had shown that objections to these ships had been overcome when Masters and pilots became accustomed to

them. Moreover, all new ships being built for their company had the navigation bridge and the engine room aft for the sake of economy and expediency.

The Harbour Commissioners' view of the railway bridge was expressed in their letter of November 16, 1960, to the Pilots' Committee (Ex. 177).

"Throughout the years many accidents have occurred at this bridge, several of them being extremely costly. The increasing size and number of ships, hulks and scows using the bridge in recent years, multiplies the risk of a serious accident. It is safe to say that, under present marine traffic conditions, the bridge can be considered a menace to navigation, with an extremely restrictive influence on the development of the industrial potential upstream from this bridge".

The Port Manager went on to say that the Harbour Commissioners were preparing a brief to the Federal Government requesting the replacement of the existing swing span with a lift span.

In his reply dated January 25, 1961, the President of the Pilots' Committee stated that he concurred in the Commissioners' remarks and referred the Harbour Master to the hearings held at the time of the construction of the Pattullo Bridge reminding him that at the time the pilots' approval of these plans was given only on the assurance that the swing span would be removed.

Three types of remedial action were proposed:

- (a) the erection of a control bridge amidships in bridge aft ships;
- (b) new methods of pilotage for bridge aft ships:
 - (i) some pilots to specialize in transiting the bridge;
 - (ii) a proper lookout at the bow, possibly a second pilot;
 - (iii) the use of tugs either to aid ships, or to tow them as dead ships;
- (c) improving river facilities by:
 - (i) reducing City Bank;
 - (ii) adding further aids to navigation;
 - (iii) illuminating the area to allow night transits;
 - (iv) erecting a system of pile clusters to funnel ships into the narrow bridge openings;
 - (v) replacing the swing span of the bridge by a lift span.

The pilots were of the opinion that the only way to alleviate the special restrictions put on a bridge aft ship (short of the removal of the swing span of the railway bridge) was to convert these ships into conventional ones for pilotage purposes by the erection of a skeleton control bridge amidships that could be used for transiting the railway bridge. Thus, the pilot would be in a conventional location where his vision would not be obscured and where he would be on the pivot point of the ship.

On August 2, 1960, the Ropner Shipping Company Ltd. wrote to the Pilotage Authority on the subject of the bridge aft vessel *Wandby* stating they were prepared to construct a bridge amidships by extending the mast construction and requesting advice from the pilots on their requirements in respect of the proposed addition. This letter was turned over to the Pilots' Committee which replied to it on August 15, stating their requirements and suggestions including the reminder, "that as long as the New Westminster Railway Bridge remains in its present condition, current and tidal conditions being as they are, the pilots have set a maximum length of 525 feet, breadth 72 feet on ships that they feel can pass safely through the New Westminster Railway Bridge" (Ex. 174).

No reply was received from the Company other than an acknowledgment with the remarks that the requirements were considered to be extremely onerous. The pilots' recommendations were not implemented as is proved by the many voyages the ship has since made to New Westminster (Ex. 160).

The pilots had several discussions in their office with the Master of the *Fenix* about plans for the ship *Tiha* that was being built in Europe to Fraser Mills specifications. When they were asked what would be necessary for the ship to transit the railway bridge they suggested a skeleton bridge amidships. The pilots were under the impression that the owners had agreed, that the ship had been built and that she was on her way to New Westminster.

On the subject of the *Tiha* the Secretary of the Pilotage Authority in a letter dated December 29, 1964, reported (Ex. 1427(m)):

"The vessel which was under construction to the Fraser Mills specifications was completed and launched in 1963 as the *Tiha*, 525 feet in length and 10,639 gross tons. However, during construction plans were changed and instead of a skeleton bridge amidships, a conning platform was constructed right forward on the focsle head.

The *Tiha* arrived in New Westminster and proceeded through the railway bridge to Fraser Mills on August 22, 1964, with a draught of 17 feet and departed on August 24 with a draught of 19 feet.

The conning position forward was found to be altogether impractical for piloting. Also, we were advised that it had suffered severe damage from heavy seas and it is understood that the owners are now considering the original plan of a skeleton bridge amidships".

In answer to a query from this Commission the Pilotage Authority's Secretary replied April 26, 1968, as follows (Ex. 160):

"With regards the *Tiha*; no skeleton bridge was constructed amidships, the conning platform remaining on the focsle head. *Tiha* was up through the bridge again in June, 1965 and in April, 1966. The pilots still found the forward position impractical and experimented with the use of two pilots, one on the focsle platform and one on the regular bridge, and using walkie-talkie radios."

The Port Manager expressed the view that familiarization with bridge aft ships would enable the pilots to take them through the railway bridge but the pilots disagreed on the ground that no amount of experience would alter the fact that transiting the bridge with large bridge aft ships is dangerous.

The pilots have studied and dismissed the suggestion that a proper lookout be stationed in the bow. They contended this lookout would have to be another pilot and that the rapidity with which the various manoeuvres had to be carried out would make such an operation impractical. They pointed out that taking the 736 foot *Argyll* through the Second Narrows bridge in Vancouver which was advanced as a proof of the feasibility of transiting the railway bridge was not comparable because the *Argyll* is not a bridge aft ship and the problem was not one of piloting but of completing a 180 degree turn and berthing the ship starboard side to. In addition, the Vancouver pilots had the advantage of slack water and the assistance of five tugs.

Captain Walter Allan Gosse, who had the *Argyll* assignment, stated that the New Westminster railway bridge can not be compared with the Second Narrows—it is an altogether different problem. He had been through the railway bridge many times with other pilots. The Second Narrows bridge has now an opening of 271 feet. The old bridge had been knocked down three times because it was outside the channel and there were cross tidal currents.

The pilots also considered impractical the use of tugs either to assist vessels make the transit or to tow them through as dead ships. It was not a question of the availability of tugs. In 1963, there were three tugs at all times at New Westminster, one of about 650 to 700 h.p. and two others with less power. There are much more powerful tugs in Vancouver which could be made available if necessary.

In the opinion of Captain R. W. Draney—42 years' sea experience, first command in 1929, 15 years in command of Fraser River tugboats—large vessels could easily be shifted anywhere as dead ships provided the right type of tug was available for the right type of ship. He had had experience in very large ships and in many places in Europe where ships go through canals and other restricted areas and also in the Panama Canal, but he recognized that these were not analogous to the transit of the railway bridge. Although he had never taken a deep sea ship through the bridge, he has been transiting hulks since 1953, i.e., barges 320 to 342 feet long, beam 40 feet, draught up to 26 feet, manned and steered, because otherwise they would not handle in close quarters, and had made 200 to 250 passages without accident.

The Port Manager, however, felt it would be unreasonable to tow vessels through the bridge as dead ships because very powerful tugs would be required and also because the available power of the vessels was being wasted. He favoured using tugs to assist vessels make the passage and stated that, if the pilots agreed to this operation, tugs of sufficient power could be obtained. He added that most ships can steer readily at a speed of 4 to 5 knots and even as low as 3 to 4. One of the harbour tugs has 500 horsepower and is capable of $9\frac{1}{2}$ knots; thus it still has a margin of speed.

He recognized that this reasoning would not apply to the high velocity current of the freshet.

Captain J. W. Kavanagh, Harbour Master at New Westminster with 14 years experience at sea, stated that he has been in fifty to sixty ports in the world where tugs are used to assist vessels navigate in restricted areas, *inter alia*, in England from Gravesend to London. At Gravesend there is a changeover from sea pilots to river pilots and two tugs are used, one of which is made fast on a line ahead and is used for steering around sharp bends or coming to the aid of the ship should she get into difficulty due to the loss of engines or steering power. The other tug stands by. In other ports they are used in a similar manner but sometimes for a variety of different purposes. Tugs generally have a locking hook with a member of the crew standing by so that if a dangerous situation arises the lock is released and the tug is freed. This is standard procedure. It would be dangerous for the ship under tow if the head tug were suddenly freed: for this reason the second tug runs off the bow. Several times in London Captain Kavanagh had seen the second tug take over and keep the ship off a pier despite the fact that there was very little time available: these tug Masters have to be experts.

However, the Fraser River pilots are firmly opposed to this procedure. Pilot Ingalls admits that providing he has ideal conditions, i.e., slack water during daylight hours with no wind and all the rest of the conditions correct, the bridge could be transited with the use of tugs. But, he added, he, as a pilot, would not go against the safety rules on his own.

The pilots use tugs when berthing ships and give orders to the tug Masters either through a "walkie-talkie" or by signal. But Captain Gilley pointed out that going through the bridge is a completely different problem. When berthing, the ship is practically stopped, and the pilot has time to give orders. But coming down through the bridge span on an ebb tide with a tug secured ahead and the ship making a possible speed of 14 knots over the ground, while the tug makes about ten, presents the real danger of over-running the tug. Also in a bridge aft ship the pilot would be unable to see the tug. He agreed that a tug could keep ahead on a flood tide but pointed out that there are many occasions when there is no slack water in the daytime. Captain Gilley was not conversant with the use of tugs on the Thames River or elsewhere.

In the opinion of the pilots a tug ahead would be more of a hindrance than help to them in taking a large bridge aft ship through the railway bridge because the time and speed of the rapid transit does not permit them to control the tug. While a vessel can be brought up river under most conditions, it may be necessary to wait several days, especially during strong freshets, for suitable conditions to bring one down river, thus causing financial loss and difficult operating problems for the operators.

Although the pilots normally employ tugs for berthing and unberthing, their few experiences of their use in river pilotage have not been very successful. About 1948 there was a near stranding off Tilbury Island when Pilot Gilley was piloting a partially loaded conventional ship drawing twenty feet from Pacific Coast Terminals to sea (apparently during freshet time) with the assistance of two tugs. One tug of 1,300 horsepower was secured alongside while the other tug of 650 horsepower was placed ahead. Although the channel bend is gradual off Tilbury Island, the lead tug fell off to one side and could not recover, and her tow rope had to be cut to save her from capsizing. On another occasion Pilot Gilley moved a dead ship from one berth to another with the aid of tugs, but without mishap.

On July 1, 1957, Pilot Ingalls used two tugs at the bow to assist the Norwegian *Thorsisle*, (who had engine trouble) through the bridge draw to Fraser Mills during a moderate ebb tide. Her length was 387 feet 6 ins., beam 53 feet 6 ins., and she drew 10 feet 7 inches forward and 14 feet 3 inches aft (Ex. 1525(d)). On reaching the bridge the ship's engines stopped. The tugs towed her through the draw but were unable to prevent her setting toward the piers. Fortunately, at that moment the engines started again and with their help the piers were cleared and the ship managed "to stagger" up to Fraser Mills. However, it was admitted that this was not a meaningful example, as the tugs employed lacked sufficient power.

Despite these incidents, the evidence has disclosed no valid reason why proper use of good tugboats would not be just as important on the Fraser River as any other commercial river, such as the Thames, where they are extensively used.

Navigational aids, such as beacon lights and range lights, were not considered by the pilots of assistance in conducting a bridge aft ship through the bridge draw. They maintained that the difficulty lies not so much in lining up the ship in a good position, but more in being in a good controlling position on board with ability to see well ahead, which is not the case in this type of ship.

The Port Manager suggested that, with proper illumination, ships, both conventional and otherwise, could be taken through the bridge at night. He proposed a system of adequate leading lights, other lights arranged around the base of the piers in such a way as to avoid glare, a series of lights up Sapperton Channel past Middle Ground Buoy and a light at Fraser Mills. The pilots were against this proposal claiming that lights would decrease visibility, that the shadows would prevent them seeing ahead and that their vision would be impaired for a minute and a half to two minutes after passing the bridge. They pointed out that berthing a ship at night is a different operation, because the ship has little or no headway. They agreed that they do navigate through lighted areas in the river which temporarily blind them but in these cases they soon recover their vision and the ship continues on a steady course, a situation that does not exist at the railway bridge.

To the suggestion that the west end of City Bank might be removed, Pilot Gilley replied that it would not simplify the bridge transit but would make it easier to navigate into Sapperton Channel. He pointed out that the main problem is passing through a narrow opening when proceeding downstream at increased speed caused by an ebb current. With a large ship there is no margin for error even when transiting the bridge upstream: if the bow of a 500-foot vessel falls off one degree, the stern will swing 55 feet and hit the bridge. This applies to a conventional ship as well as to bridge aft ships but he repeated that in the former case, since the pilot is stationed amidships, he can readily see before it is too late whether the ship is falling off her course. Hence, while dredging the tip of City Bank would provide more room to manoeuvre above the bridge, it would not alter the width of the draw and permit the passage of larger ships.

There was general agreement that the only real solutions would be either to remove the bridge or to replace the swing span with a lift span. The present railway bridge will always be a menace to navigation—even if safer methods of transiting could be devised—and the danger will grow as vessels increase in size. If the swing span and centre pier were removed, the existing bridge safety regulations would no longer be necessary and tugs and barges also could move downstream normally without resorting to the dangerous, complicated procedure of transiting stern first.

Because the entrance is so narrow, the pilots have to wait for the right tide before transiting. If the centre pier were removed, the only limitation would be a ship's draught and there would be no restriction for tide or current, except possibly for very large ships at the height of the freshet when the currents are very strong. This restriction would be for brief periods only, since the record shows that the gauge at Mission City has exceeded 20 feet only three or four times since 1948. If Sapperton Channel were dredged as well, there would be no special limitation for that part of the river.

(d) Submission by Crown Zellerbach Building Materials Limited

Crown Zellerbach Building Materials Limited (p. 259) is located at Fraser Mills and trades in all deep-sea markets through Seaboard Lumber Sales Company, a cooperative selling agency serving all maritime markets.

The Company's method of transportation is either by rail, truck or vessel, loading directly from wharves to vessels or indirectly through transshipments from scows.

A large percentage of their foreign shipments are "packaged lumber". Their experience with this method started around 1960 on the Atlantic Coast and by 1962 all their mills were shipping packaged lumber exclusively.

The Safety Regulations have handicapped the Company to some extent because they restrict the markets in which it can compete. The cost of delivering Fraser Mills lumber to overseas markets is increased because some vessels are effectively prevented from coming up through the bridge.

In order to meet the Safety Regulations and the pilots' restrictions, the Company always tries to obtain vessels that are not bridge aft but these are increasingly difficult to find. Hence, more and more the Company is allotted ships that are restricted from going to Fraser Mills with the result that lumber must be transported out by scows, thus increasing delivery costs to foreign markets. Between 1951 and 1960 inclusive, direct loading at Fraser Mills averaged 90.7% of its shipments. This percentage has steadily decreased from 47.7% in 1962 to 23.4% in 1964 (Ex. 165, Appendix 1 and Ex. 165 B). Despite the strikes in 1958 and 1959, most of their shipments were direct loading in 79 and 73 ships respectively, while in 1962 the number fell to 33 ships, in 1964 to 22 ships and in 1965 to 14 ships, accounting for only 18% of their total shipments. During the fourteen year period 1951-1964 inclusive, the Company's total exports have averaged about 66,000 M.F.B.M., annually.

The Company would prefer not to transport lumber by scow to Vancouver because this adds to operating costs.

The change from direct loading at Fraser Mills to scowing for loading in New Westminster or Vancouver is not, however, solely due to the restriction of the railway bridge but also to a number of other factors:

- (a) allowable draught;
- (b) some vessels can not transit the railway bridge because of their size or construction (a few years ago the average size of vessel allocated to the Company was 400 feet, in 1962 it had increased to 500 feet);
- (c) ships may have to wait up to 14 hours for a suitable tide to pass the bridge;
- (d) shipping agents often find it more convenient to have lumber brought to the ship than vice versa;
- (e) on occasion the exporters find scowing to New Westminster more economical;
- (f) cargo arrangement—particularly topping and last loading. Of the ships which carried the Company's lumber in 1961 only two could have been completely loaded at Fraser Mills and still meet the maximum allowable outbound draught of 25 feet.

The extra cost to scow lumber to Vancouver is between \$2 and \$3.30 per thousand feet board measure. There is not much difference whether lumber is scowed to New Westminster or to Vancouver; the determining factor is the volume that is being scowed. The Company tries to have at least 300,000 feet for any one loading since this quantity will give approximately a day's work to the longshoremen crew at Fraser Mills. The question to be decided is whether it is more economical to bring a ship up to Fraser Mills to load 300,000 feet B.M., as the minimum quantity. In 1962, at

Vancouver, bridge aft ships *World Japonica* loaded over 1,000,000 board feet of Company lumber, *West River* 1,375,000, *Thorsodd* 761,000, *Pelagos* 878,000 and *San Juan Exporter* 1,500,000. It would have been more economical to load them at Fraser Mills than at Vancouver as was actually done (Ex. 165).

The following statistics appear in Exhibits 165, 165B and 189:

(a) *Bridge aft ships that called at Fraser Mills*

1961—3 out of 52 vessels
max. draught 24'10" length 385'10", date Jan. 27
max. draught 19'6½" length 324'0", date March 24
max. draught 19'9" length 310'6", date Oct. 26
1962—none out of 32 vessels
1963—3 out of 30 vessels
max. draught 19'6½" length 324', date April 24
max. draught 17'1" length 315', date March 25
max. draught 17'1" length 315', date Aug. 7
1964—2 out of 22 vessels
max. draught 19'16½" length 324', date Feb. 4
max. draught 28'4" length 524'11", date Aug. 25
1965—2 out of 14 vessels
max. draught 20'0" length 307'5", date Feb. 5
max. draught 28'4" length 524'11", date June 14
1966—1 out of 5 vessels
max. draught 28'6" length 525', date July 4

(b) *Bridge aft ships that called at New Westminster*

1961—8 out of 74 vessels
1962—7 out of 45 vessels
1963—4 out of 63 vessels
1964—5 out of 60 vessels
1965—6 out of 48 vessels
1966—22 out of 43 vessels

Note: Only two of all the non-bridge aft ships exceeded the 525 feet maximum length permissible for passing the bridge. In most cases, however, their maximum draught exceed the 24-25 foot limit; therefore, they could not have proceeded to Fraser Mills if their call was for topping off cargo or for a load that would increase their draught above 25 feet.

(c) *Bridge aft ships that called at Vancouver*

1961—10 out of 20 vessels
1962—21 out of 36 vessels
1963—41 out of 44 vessels (all in 1963 except one [496'] over 500' in length).
1964—41 out of 52 vessels
1965—50 out of 69 vessels
1966—40 out of 56 vessels

These statistics confirm that the trend is to larger ships and bridge aft ships.

However, the bridge is not the only factor. Nine ships shown on page 4 of Exhibit 189 are conventional ships which could have loaded at Fraser Mills instead of being loaded at Vancouver; in six cases the cargo was insufficient, i.e., less than 300,000 feet. On the other hand, ships occasionally go to Fraser Mills to load comparatively small quantities of special cargo because other mills in the vicinity may also wish to load there from scows.

For cargoes of over 1,000,000 feet, the Company would bring almost all ships into Fraser Mills, if at all possible, in order to avoid scowing expenses. But in each case there must be a separate calculation depending on the quantity, the cost of the ship to the exporter, the terms of the charter and a number of other factors. The Company added that it is almost impossible to generalize on the comparative economics of loading at Vancouver and loading at Fraser Mills.

In Exhibit 165B, the Company estimated that because of the restrictions imposed by the railway bridge, the extra cost of scowing from Fraser Mills to New Westminster and Vancouver amounted to \$259,000 for the years 1961 to 1963 inclusive, and to \$85,205 for 1964, after deducting one third of the total cost as an allowance for what would have been scowed out in any event because of quantity, topping, special cargo, etc. In addition, the Company pointed out that in 1964 its two deep-sea berths at Fraser Mills were used only 7% of the time.

(e) Developments Since the Commission's Public Hearings

The pilots' position regarding bridge aft vessels and navigation through the New Westminster bridge has been substantially modified since 1961, thereby improving to a large extent the position of Crown Zellerbach Building Materials Limited and other industries situated upstream from the bridge. In an answer to a query from this Commission regarding the present stand on the question of bridge aft ships, the Secretary of the New Westminster Pilotage Authority, on April 26, 1968 (Ex. 160) sums up the progress of the changes and the present situation as follows:

"During the period since the Commission's hearings in this district, the subject of bridge-aft vessels and navigation through the Westminster Railway bridge, has been under almost constant discussion and review, with the pilots under pressure from Crown Zellerbach Co., Seaboard Shipping Co., the Harbour Board, Etc. The number and size of the bridge-aft vessels was constantly increasing. Seaboard Shipping was chartering this type of vessel almost exclusively and as a consequence virtually no ships were proceeding to Crown Zellerbach dock at Fraser Mills. Finally, after a series of meetings, the pilots advised the Commissioners that they wished to make a trial passage to Fraser Mills with a bridge-aft ship.

The pilots stated that the new portable radio-telephone equipment recently supplied by the D.O.T., was proving very efficient, enabling them to be in constant contact with pilots on other vessels, assisting tugs, other traffic, the patrol boat, etc. The Harbour Patrol boat is proving very effective, and the desire and co-operation of all concerned, they felt, warranted the action.

For this transit, two pilots would be used, it would be made during best tidal and current conditions, the vessel would be in best possible trim for maximum visibility, two tugs would be in attendance, and the patrol boat would keep traffic clear one mile above and below the bridge and would act as radio contact between the pilots and the bridge operator. Therefore, with the approval of the Commissioners, the British vessel "Ocean Transport", a vessel 463 feet in length, was taken up through the bridge on December 18, 1966 and out on December 23, 1966.

With the successful transit of the "Ocean Transport", it was agreed that bridge-aft vessels of up to 475 feet in length should navigate the bridge. In February, 1967, Crown Zellerbach requested that the M.V. "Wandby", 517 feet in length be taken to their dock. Again, after serious consideration and taking into account the experience gained and the cooperation given during the transit of the "Ocean Transport", the pilots recommended and the Commissioners approved the transit through the bridge of the "Wandby" on March 23, 1967.

Following the safe passage in and out of the "Wandby", the pilots recommended that the length for transit of the bridge be increased to 525 feet. During the year 1967 ten vessels with bridge-aft in and out through the bridge. Also, after July the services of the second pilot were dispensed with.

Since receipt of your letter we have received further recommendations from the pilots. A copy of the Commissioners letter regarding this is attached. (Vide amendments to safety rules April 1968, pp. 383-384).

Conditions have changed considerably since the hearings in 1963. The supplying of the radios by the D.O.T., the putting into service of an efficient patrol boat by the Harbour Board, the improvement in the construction of the bridge-aft vessels since the first that came into the river, the full-co-operation of all concerned have helped to make these improvements possible. The pilots still feel that navigation through the bridge is hazardous and that the area will not reach it's full potential until the bridge is rebuilt or removed."

The Secretary to the Pilotage Authority also reported that since 1966 the restrictions in the safety rules have been gradually eased in other respects on account of gradual improvements in the depth of water, widening of the channel in the bends and the complete reorganization of aids to navigation in 1967.

As of May 1st, 1968, the safety rules had been amended three times since April, 1961: Feb., 1966, March, 1967, and April, 1968. Each modification consisted of a further relaxation of the restrictions.

(i) *The main changes in the 1966 amendments were (Ex. 160):*

(a) *Main River Channel*

- (i) The maximum permissible draught was raised by one foot (29 feet 6 ins.).
- (ii) The absolute restriction on outbound vessels with a draft of 24 feet or more at Steveston Cut on a falling tide was abrogated and replaced by a requirement that the pilot be consulted.
- (iii) The absolute restriction on night navigation of bridge aft ships was abrogated.
- (iv) The maximum permissible length of a ship was increased by 50 feet (650 feet), with the proviso that the draught of ships exceeding 600 feet in length should not exceed 24 feet.

(b) *Westminster Railway Bridge*

- (i) The maximum draught inward to Fraser Mills was officially increased by 3 feet (24 feet) and the maximum draught outbound by one foot (25 feet).
- (ii) A maximum beam of 72 feet was added to the maximum permissible length of 525 feet (vide pilots' letter to Ropner Shipping Co. Ltd., Aug. 2, 1960, p. 370).

(ii) *The changes in the 1967 amendments were:*(a) *Main River Channel*

- (i) The maximum draught was increased by half a foot (30 feet).
- (ii) The requirement to consult the pilots on draught at low tide in the Steveston Cut applied only to ships of 26 feet draught or over.
- (iii) The maximum length was again further increased by 50 feet (700 feet) and the maximum draught for vessels over 600 feet was raised by one foot (25 feet).

(b) *Westminster Railway Bridge*

- (i) The maximum draught downbound from Fraser Mills was increased by two feet (27 feet).
- (ii) The special length limitation on bridge aft ships (375 feet) was dropped.

(c) *Pacific Coast Terminals*

- (i) The maximum draught limitations were increased by one or two feet.

(iii) *The changes in 1968 were:*(a) *Main River Channel*

- (i) The maximum draught was increased by one foot (31 feet).
- (ii) The maximum length was increased by 50 feet (750 feet) and the maximum draught of 31 feet made applicable to vessels up to 650 feet; for those over 650 feet the draught was increased by one foot (26 feet).

(b) *Westminster Railway Bridge*

- (i) The maximum draught inbound to Fraser Mills was raised by one foot (25 feet).
- (ii) The maximum draught downbound from Fraser Mills was also raised by one foot (28 feet).
- (iii) The maximum length and beam of vessels of all types were increased by 50 feet (575 feet), and 3 feet (75 feet) with the proviso that individual consideration was to be given to vessels of 575 to 625 feet in length.

Bridge Transit Statistics—Ship transits of the railway bridge have called for an additional charge only since July 28, 1960 (P.C. 1960-1035). Thus, it can be ascertained how many times ships were piloted through the bridge during those years.

1960/61	188	} from July 28, 1960, to March 31, 1961.)
1961	123	
1962	90	
1963	73	
1964	74	
1965	50	
1966	38	
1967	60	

(f) Replacement of Swing Span by Lift Span

As previously stated, the Government of the Province of British Columbia elected to surrender its title to the bridge to the Federal Government in 1939 and neither during the ten-year waiting period, nor afterwards, were any alterations made to the bridge. The proposed lift span was not installed because the Department of Public Works, up to the time of the Commission's hearing, adopted the view that, when all the related factors were taken into consideration, its installation could not be justified.

Agreements concerning the use of the bridge by the various railway companies have been renewed from time to time:

- (a) An agreement with the Canadian Northern Pacific Railway Company and the Canadian Northern Railway Company, dated August 6, 1940, is still in effect, having been renewed in 1950 for a period of ten years and again on December 13, 1960, for a further period of one year commencing December 1st, 1959, and thenceforth from year to year until terminated by mutual consent (Ex. 1171).⁵
- (b) An agreement with the British Columbia Electric Railway Company, Limited, (now owned by the British Columbia Government) dated December 1, 1939, is also still in effect after being renewed in 1953, 1955 and 1960, the last renewal for a period of one year commencing December 1st, 1959, and thenceforth from year to year until terminated by mutual consent.
- (c) An agreement with the Great Northern Railway Company (of the United States), granting it the right to use the Fraser River railway bridge, dated August 1st, 1944, and renewed in 1950 and 1960, the latter renewal for a period of one year commencing December 1st, 1959, and thenceforth from year to year until terminated by mutual consent.

The revenues derived from the operation of the bridge come from these three railway companies. There are also miscellaneous receipts obtained from various claims resulting from damages to the bridge.

The maintenance and operation costs approximately balance the revenues. The Department of Public Works considers the average annual reserve in the trust account a necessary standing reserve to meet possible abnormal repairs and maintenance costs, since the bridge was constructed over sixty years ago.

⁵ The Canadian National Railway is now the national railway company, having amalgamated the Canadian Northern Pacific Railway Company and the Canadian Northern Railway Company.

Inspections are carried out regularly by Canadian National Railway engineers and by B.C. Government Department of Railway engineers. A survey made in 1958 by Dominion Bridge Company Limited (Pacific Division) indicated that the bridge was in excellent structural condition.

At the Commission's hearings, Colonel William George Swan, Civil Engineer, who was the engineer in charge of building the Pattullo Bridge, and who inspected the railway bridge on one or two occasions and accompanied the engineers of Dominion Bridge Company Limited in 1958, estimated a remaining life span of 40 years for the bridge structure with normal maintenance and repairs. He supported his opinion by pointing out that when the bridge was erected in 1903 it was built to carry a two-lane road in addition to rail traffic. The highway lanes have been removed and the railway traffic has become lighter—not in the number of cars but in the weight of locomotive equipment. Therefore, the stress on the bridge is much less than it was originally designed for. These factors account for its longer than normal life span.

On June 1st, 1946, prior to the expiration of the ten-year waiting period, the Department of Public Works sought the opinion of a consulting engineer, Dr. P .L. Pratley,

"...whether the construction of a modern lift span in the existing bridge is practicable in this location and justifiable in the light of the age and suitability of the present structure to accommodate the present and anticipated future traffic".

In his report, dated August, 1947, Dr. Pratley rejected the proposal as:

- (a) uneconomical in terms of capacity, conditions and probable future life of the steel and masonry structures;
- (b) undesirable due to the river conditions, i.e., nature of bottom, shift of sand, etc.;
- (c) impractical in consideration of the type, location and extent of the new construction likely to be needed.

He divided this question in two parts:

- (i) Would it be economically justifiable to consider rebuilding the movable span of the New Westminster bridge, having regard to the rest of the structure?
- (ii) Would it be practical to rebuild it as a vertical lift span on the same longitudinal axis as the existing bridge?

The gist of his report is as follows. The piers date back to the period 1901-1903, the spans were designed in 1901 for one single track railway and for a 16-foot roadway located above the railway. The roadway was removed in 1939. The Canadian National Railways, the principal user, made an exhaustive inspection in 1942-43 to determine *inter alia*, what locomotives could be safely accommodated and what their speed restrictions should be. This examination led to a programme of repairs carried out in 1943.

During Dr. Pratley's inspection in May, 1947, he found the bridge in good general condition and the swing span functioning very well. He considered that a proper maintenance policy combined with full enforcement of the load capacity restrictions would ensure the present capacity for many years to come, barring accidents.

With regard to the question of obsolescence he thought that the demand for heavier power may become insistent within a period of about fifteen years (from the date of his report) judging by developments in other industrial and seaport centres where bridges of approximately the same vintage call, or have called, for similar restrictions.

"I also feel that replacement at the end of this period will take the form of a new structure at a better site, probably upstream, as was considered some twenty years ago when my firm studied the possibility of taking the Canadian National across the Fraser River, via Douglas Island and entering Vancouver more directly. This total life period of about sixty years would probably be above the average for E40 structures built about the turn of the century.

From the point of view of railway capacity, I am therefore prepared to assume that the steel spans of the existing bridge are likely to prove an acceptable, though not necessarily adequate, facility for a further 15 or 20 years. This is not a long enough prospect to justify the building of an entirely new and superior lift span which would be much more costly to construct as a betterment to the present traffic-carrying structure, than as part of a completely new bridge on an unoccupied site.

At freshet seasons, the river is heavily laden with silt, and any circumstance operating to reduce local velocities is also likely to induce the deposition of the silt burden and the consequent raising of the river bed. On the other hand, any circumstance operating to increase the local velocities is likely to induce scouring of the bed unless positive preventive steps have been taken in advance.

Also the bridge piers themselves have had their influence on river flow, and the current in turn has attacked the stability of the sand under and adjacent to the piers. Thousands of tons of heavy stone rip-rap have been placed around these piers during the 45 years which have elapsed since their construction and this stone has sunk and slipped and spread over the river bottom so that its present disposition is quite impossible to estimate or describe.

All these features suggest to me that the actual conditions present a sufficient problem and that no work or construction should be lightly undertaken in the neighbourhood of these bridge piers which might introduce further and unpredictable changes in river conditions."

He went on to say that since their construction the Pattullo Bridge piers have created an obstruction which has changed and increased the current and induced silting at certain places. After studying the various problems involved in building a lift span over the swing span while maintaining the traffic, he concluded that it would be impracticable to build the necessary supports for the proposed vertical lift span on the line of the present bridge. He came to the conclusion that dealing respectively with obsolescence, river conditions and construction problems, the proposal to replace the existing swing span by a vertical lift span on the same center line must be rejected as uneconomical, undesirable and impracticable. Having reached this conclusion, he made no study of cost or time estimates.

The contents of this report were not made public. However, the Department of Public Works acting on it and also, no doubt, after consideration of the many other factors involved, decided not to proceed with the modifications suggested in 1936. No further action was taken until the intervention of the New Westminster Harbour Commissioners in January, 1961. A representative of the Department of Public Works expressed the opinion that the circumstances have changed in the twenty years since the Pratley Report was compiled and that further investigation of existing conditions should be made.

For sometime the New Westminster Harbour Commissioners had been disturbed about the adverse effect of the railway bridge on the port and in January, 1961, they submitted a brief to the Department of Transport urging that a lift span be installed. They considered this a long range solution because the proposal, even if it had received immediate approval, would have taken five years to implement. In the meantime, as seen earlier, the Harbour Commissioners worked with the pilots on other possible partial remedies which would enable bridge aft ships to transit the bridge draw. The Commissioners felt that the 1936 Order in Council approving the construction of the Pattullo Bridge committed the Federal Government to removing the swing span and replacing it with a lift span, and the purpose of the brief was to ask the Federal Government to meet this commitment.

On March 1st, 1961, the Harbour Commissioners received a report from Swan, Wooster Engineering Company Limited, Consulting Engineers, estimating the cost of converting the swing span of the bridge to a vertical lift span at \$1,963,500.

The Department of Public Works quoted a figure of "up to \$8,000,000" for the installation of a lift span but on examination it was found that this amount was a casual estimate obtained from the Bridge Engineer of Canadian National Railways on the occasion of a meeting to discuss quite different topics. No detailed engineering study had been made. The Department had no breakdown of the estimate but it was known to include both the cost of the bridge and incidental expenses such as re-routing railway traffic while the new span was under construction. In addition, the estimate was based on a span 450 feet wide rather than 350 feet.

Complaints about navigational difficulties caused by the railway bridge have continued ever since it was built. Prior to 1961, however, there is no evidence in the Department's files that it investigated the complaints. The New Westminster Harbour Commissioners' brief in 1961 dealt with the navigational problems of which the Department had long been aware. It knew of the restrictions on navigation created by the railway bridge and its effects, but the stand it took was that it had not been established that the navigational requirements justified the conversion requested. Up to the time of the Royal Commission's hearing, no additional evidence had been

brought before the Department to show any substantial change in the degree of the hazard to navigation sufficient to justify any change in the existing arrangements. The Department considered that evidence was required to indicate whether the installation of a lift span, or the construction of a new crossing at another location, whichever should be decided upon, could be justified when the cost of construction was weighed against the economic benefits being derived from the area concerned. The Harbour Commissioners' contention was that the development of the upper portion of the Fraser River is extremely important to the port and to the growth of the area as a whole.

Therefore, in 1961 nothing further was done about the Harbour Commissioners' complaint. This was before the increasing trend to bridge aft ships which introduced a new element that, in the Department's opinion, should now be considered.

In June, 1962, the Department of Public Works received, through the Department of Transport, a submission made by the New Westminster Pilotage Authority concerning the refusal of the pilots to take bridge aft ships through the bridge.

An interdepartmental committee was then formed to investigate the particular problems of bridge aft ships. The committee was under the chairmanship of the Director of Economic Studies of the Department of Public Works; the other members were from the Economic Research Branch of the Department of Transport; Aids to Navigation Branch, Department of Transport; and Harbours and Rivers Branch of the Department of Public Works—four in all.

The scope of this interdepartmental committee was not, however, to investigate navigational problems, i.e., the objections of the pilots or dredging problems, but merely the economics of the question.

The committee took as a basis for discussion that the restrictions laid down by the Pilotage Authority and the pilots were justified, without implying, however, that they accepted or rejected these restrictions, their sole purpose being to investigate the eventual economic loss caused thereby. Before discussing the question of navigation, they first wanted to appraise its economic importance. Therefore, before considering any alteration in the swing span of the bridge, the need for larger ships to navigate above the bridge had to be established first.

One of the points that the committee felt should be established was the value to the industries making use, or who could make use, of the channel above Westminster bridge contrasted with the cost of dredging the upper channel and the effect on navigation of replacing the swing span. It was the committee's feeling that it would be difficult to justify any major reconstruction unless it could be shown that the direct benefits to industry would correspond to the actual annual costs.

The only available information about the area above the bridge and its economic development was that supplied by Crown Zellerbach to the New Westminster Harbour Commissioners.

This committee was not very active; it had only two meetings, on August 16 and December 14, 1962.

When the committee met on August 16, 1962, the Department of Transport representative undertook to obtain further information. He did not seek information from Crown Zellerbach directly, but proceeded through the New Westminster Harbour Commissioners while they were attending a meeting on other business in Ottawa on November 22, 1962. He then requested certain information elucidating the position of the Crown Zellerbach Company. This the Harbour Commissioners undertook to furnish, i.e., further details about traffic and the Company's method of operation.

The committee felt the figures that had been furnished by Crown Zellerbach would not be significant unless, for instance, direct loading at Fraser Mills were known to form part of the Company's policy, if a lift span were constructed. The matter, however, was not pursued with the New Westminster Harbour Commissioners after that meeting. Nothing was heard from them on the subject and there was no follow-up on the committee's part.

At the meeting held December 14, 1962, the Department of Transport representative reported that he had been unable to obtain the necessary information. There have been no further meetings because the committee was informed this Royal Commission had been established and that relevant submissions were being filed by Crown Zellerbach and other interested parties. The committee therefore took the attitude that they should wait to see the transcript of the evidence that would be given to the Commission.

The Department of Public Works had been aware of the difficulties encountered at the bridge long before receipt of the letter dated April 17, 1962, from the New Westminster Pilotage Authority and felt that it was in an unhappy position since it had the responsibility of maintaining a bridge which was hazardous to navigation and used entirely by the railways. Its sole responsibility was to keep the bridge in operation and it had nothing to do with the questions of navigation, rules of the road or pilotage.

The Department of Public Works is aware of the difficulties attending bridge aft ships and of the increasing size of ships in general, but is not aware of any substantial change in the traffic passing the bridge. However, it agrees that there may be a difference between the traffic actually passing the bridge and the traffic that desires to pass it. It accepts the fact that the bridge is a hazard to navigation, since any structure placed in a waterway must constitute a hazard to some extent. The difficulty is to determine the degree of the hazard and its importance, bearing in mind other factors.

The Department agreed that since the arrival of bridge aft ships navigational problems have increased.

In the opinion of the Department's officials, if approval was being requested today for the construction of this railway bridge under the Navigable Waters Protection Act, 1962 R.S.C., 193, it would not be granted even at the width of the so-called vertical span. The width would have to be in the neighbourhood of 450 feet corresponding to the adjacent Pattullo Bridge. They acknowledged the fact that maritime traffic has changed over the years and that the requirements of 20 years ago are not the requirements of today.

A second interdepartmental committee was established under the chairmanship of the Department of Transport to bring the railway interests and the Department of Public Works together for technical studies. At the first meeting, the only railway company representative was from the Canadian National Railways. The only topics were the relocation of the bridge and its reconstruction. The scope of that meeting was simply to lay the groundwork for further investigation.

At the second and final meeting of this committee held April 9, 1964, the question of an alternative site was discussed. The committee did not reach any conclusion.

The bridge is over 60 years old. Traffic conditions are not the same as they were at the time of the Pratley Report in 1947, when steam locomotives were used. Although railway traffic increased in the period 1948-1962, the loading factor on the railway bridge has decreased because the locomotives have been converted to diesel. Hence, obsolescence in terms of bridge life is not now as serious a factor as it was at the time of the report. Obsolescence, however, was only one of the factors considered at the time and not necessarily the most important.

In 1947, Dr. Pratley indicated a further useful life of 12 to 20 years might be expected, but this was based on the railway traffic at that time. Despite the fact that the traffic is not now as heavy, 20 years have passed and the Department of Public Works is of the opinion that it would not be justified economically to spend a great deal of money on major reconstruction of a bridge which is now so old.

No detailed analysis of the life span of the bridge had been made, but bearing all factors in mind, i.e., river conditions, navigational hazards, life of the bridge and, in addition to these, other undesirable and undesigned features which all affect the railway operations—one of these being a sharply curved bridge—all these factors would have to be considered in order not to compound the original miscalculation. It is understood to be the present view of the Department of Public Works that in the end the best solution might

be another crossing over the river at another location. However, this is dependent again upon a large number of factors, one of which is the future plans of the railways.

Colonel Swan's estimated cost of replacement of the swing span by a vertical lift at \$1,963,500 (Ex. 182) as of March 1st, 1961, covers only the cost of construction of the lift span, two towers, north and south piers, mechanical equipment, electrical equipment and removal of the existing span and pier, plus engineering and contingency 10%. The opening would be a span of 265 feet clear, compared with 170 feet on each side as at present, and with the 450-foot overall opening of the Pattullo Bridge. It is to be noted that, according to this proposal, the opening would be less than the actual width of the swing span which is 372 feet between both side piers because the new piers on which the towers would rest would be constructed further inside the river channel.

Colonel Swan, who is familiar with the existing conditions, would implement his proposal in the following order:

- (a) construct the two piers on which the vertical columns carrying the lift span would be erected inside the existing north and south draws;
- (b) construct the vertical lift on scows and move it into position;
- (c) erect simultaneously the two towers of the lift span, both of which had been fabricated beforehand in sections;
- (d) install operating and electrical equipment and carry out tests;
- (e) remove the existing swing span on scows and land the lift span on the new piers;
- (f) remove the centre pier and the protective work of the swing span.

Shipping would be interrupted for about seven weeks.

Based on his experience of the river bottom when he was in charge of constructing the Pattullo Bridge, he stated there would be no problem with footings. Although the new piers would be sited a little further inside the channel, they would be relatively small and would have little effect on the currents. He observed that the two piers together would occupy less space than the existing centre piers and that when the swing span was removed there would be a straightening of the current.

Despite increased costs for labour and steel, Colonel Swan felt his 1961 estimate still held because the piers could be built for substantially less than was originally estimated.

Rail traffic would have to be re-routed during the seven weeks' interruption. The amount the Harbour Commissioners would have to pay the railroads in diversion costs was estimated at \$160,000.

Colonel Swan believed the bridge would last another forty years if it were converted to his plan, and that a bridge of this nature would remove practically all navigational hazards.

As the Swan, Wooster Engineering Company Limited Report appeared to be in conflict with the Pratley Report, the Department of Public Works retained the firm of Phillips, Barratt and Partners, Consulting Engineers, of Vancouver, B.C., to carry out a further study of the feasibility in terms of engineering economics of replacing the swing span with a lift span and to determine the cost. If the proposal was found not to be feasible, the report was to include possible alternatives and their estimated cost. The study was based on the proposal that a vertical lift span in its raised position should provide a minimum vertical clearance of 140 feet for a clear horizontal distance between piers of 400 feet (25 feet wider than the Pattullo bridge on account of the presence of solid piers) with the centre point of the lift span in line with the centre point of the Pattullo highway bridge 200 feet downstream and parallel to the railway bridge.

The consultants' report was received in May, 1966. The conclusion was that the only practical solution to widening the navigation channel at the site of the existing railway bridge would be the construction of a new bridge at a new site some distance upstream from the existing bridge, the estimated cost of which was \$9,492,000 not counting the cost of railway relocation.

The summary of conclusions reads as follows:—

"The overwhelming array of adverse circumstances associated with the construction of new piers close to existing piers, and with the erection of the superstructure, can lead only to the conclusion that it would be most unwise to attempt the construction of a new lift span on the present alignment while the bridge is kept open to rail traffic.

The hazards of caisson construction under normal circumstances where there are no existing adjacent structures are great—the sinking process is never fully under control, and river work is always subject to unforeseen difficulties. However, to attempt to sink caissons immediately adjacent to existing piers and spans would be undertaking work at risks greater than are warranted in an attempt to extend the useful life of this bridge.

The hazards of erection of the superstructure are also sufficiently uncertain that it is impossible to guarantee that this work could be done without lengthy closures of the bridge to both rail and river traffic.

It is therefore the recommendation of this report, that in spite of the significantly higher costs, the only practical solution to widening the navigation channel at this site is the construction of a new bridge."

On the question of obsolescence of the present railway bridge, they stated as follows:

"It is impossible to determine accurately the probable life of a structure, but we see no reason to believe that the present bridge will be not adequate for many years to come for *railway* use. The bridge however, is already obsolete from a point of view of river traffic, and must remain so until its complete removal, in view of the finding of our report that it is impractical to replace the swing span."

There the matter rests at the moment. However, there is one other development that may affect this question. Effective October 1, 1966, responsibility for the Navigable Waters Protection Act was transferred from the Department of Public Works to the Department of Transport under authority of Order in Council P.C. 1966-1886 dated September 29, 1966.

(g) *Port Mann Highway Bridge (Ex. 1338)*

This bridge is located above Port Mann some four miles upstream from the Westminster bridge. It was constructed in 1964 with the specific aim of avoiding impediments to future deep-sea shipping. It provides vertical clearance of 145 feet and horizontal clearance of 800 feet, in sharp contrast to the 372 feet total width of the railway bridge which the central pier further reduces to two draws of about 171 feet each at the surface.

The pilots were consulted prior to the construction of the Port Mann Bridge and of three locations, they recommended the most easterly. They also recommended that, in view of the fact that river traffic is increasing yearly, only a high level bridge⁶ with a width equal to the full width of the usable and deep-water channel should be considered, i.e., a 1200-foot opening would be needed to leave the deep channel clear. The last recommendation was not completely followed, since it provides an 860-foot opening, as already noted.

COMMENTS

It was strongly urged that the railway bridge obstruction be corrected by converting it from a swing span to a lift span. This recommendation and others regarding deepening the channel both above and below the railway bridge do not come within the scope of this Commission's mandate. Neither the Pilotage Authority nor the pilots are empowered to order the removal or modification of the bridge or to require any type of work in the channel. The pilots' rôle is to cope, as far as possible, with the limitations thereby created.

However, as the main users of the channel and experts in its navigation, it is their duty to make these limitations known to all concerned and, whenever there is a solution they consider feasible, to make it known to the responsible authorities.

Not only does the Fraser River and its delta present a constant maintenance problem but to deepen the channel to accommodate the larger vessels of the future would involve very substantial capital expenditures. There is no doubt that, if the channel is not enlarged, New Westminster will soon be inaccessible to normal ocean-going traffic. The decision whether the necessary steps to avoid this situation should be taken belongs to the Government and should be based mostly on economics and the general interests of the public.

In the course of its hearings the Commission was informed that the Department of Public Works had suspended the study of the question of the railway bridge because pertinent evidence on the subject that would be likely to be useful in their further studies would probably be brought before this Commission. It is with that aim in mind that the Commission has made as

⁶ A high level bridge would not be practical for railways because of the gradient.

complete a report as possible based on all the relevant evidence that came before it both concerning the extent of the limitations on navigation created by the existence of the bridge and the feasibility and advisability of removing or converting it.

With regard to the so-called safety regulations, i.e., under what circumstances a ship can be safely navigated, this is a matter to be decided by the experts in the pilotage of these waters, namely, the licensed pilots, bearing in mind that the extent of their own competency is also one of the limiting factors.

When the circumstances that prohibit safe navigation are either permanent or predictably recurrent, their limiting effects should be appraised and published so that all concerned may govern themselves accordingly.

It is not only permissible but commendable for the pilots to assess these limitations as a group, thereby avoiding possible individual conflicting opinions and at the same time, increasing their efficiency by bringing to each one the benefit of the experience of the others.

When the pilots have stated the limit of their capabilities, it becomes the responsibility of the Pilotage Authority to do everything possible to increase the efficiency of the service, a course of action which was possible in this case as proved by the series of events which has taken place since the March, 1963, public hearings of this Commission. One course of action is to make known to those responsible for making improvements the navigational problems that exist, in the hope that some limitations can be removed. Another course of action is to improve the efficiency of the service, for instance, by improving the pilots' training to ensure they become experts in the handling of large ocean-going vessels of all types, are fully conversant with the use of tugs to assist, by establishing a grade system for pilots' licences and, if necessary, requiring the most skilled pilots to obtain special training in order to solve a particular local problem.

There is always a danger that group decisions of this nature will be governed by the lowest level of ability. When a number of individuals perform a service, all can not be competent to the same degree. The impression gathered from the evidence received from the New Westminster pilots themselves, and also those in the other Districts, is that the pilots who feel able to perform a difficult assignment refrain from doing so if others in their group are not capable. These highly competent pilots are apprehensive of the resentment of their fellows.

In addition to their greater natural ability, they may acquire greater competency through experience. In a realistic and responsible pilotage organization pilots with long experience and a good record should be expected to take the more difficult assignments, whether on account of the type or size of vessel, or because of the prevailing conditions and circumstances, (such as freshet, or a temporary defect in the vessel's manoeuvra-

bility) or a combination of both. Therefore, it is believed that even with a small group of pilots, as in the New Westminster District, part of the solution lies in the official recognition of the greater *expertise* of certain pilots through a grade system based solely on competency. It would follow that a higher grade should call for increased remuneration. (Vide General Recommendations 30 and 31, Part I, pp. 565 and ff.).

It may be surmised that the substantial decrease in ocean-going traffic since 1964—which is likely to continue—has been a deciding influence in making the pilots change their expert opinion on the restrictions which they stoutly defended before this Commission in 1963 on the ground of safety, especially on matters where they stated that no amount of training on the part of the pilots nor any type of outside assistance could correct, e.g., navigating bridge aft ships. Care should be taken that such a reversal of opinion on the part of the pilots is not governed by factors unconnected with the safety of navigation, such as undue outside pressure and/or their own personal interests. However, experience so far has proved that the pilots' strong stand taken in 1961 and reaffirmed before this Commission in 1963 was unwarranted. It also proves that the pilots' *expertise* in shiphandling can be improved by training and that, therefore, the present method of qualifying pilots is deficient. This point will be further studied later.

2. NATURE OF PILOTAGE SERVICE

(1) COMMENTS ON THE NATURE OF THE SERVICE

Pilotage in the New Westminster Pilotage District is mainly river pilotage with all the usual attendant hazards and difficulties, including freshets. In addition, there are the problems presented by the railway bridge. The difficulties of pilotage and berthing and unberthing ships within harbour limits are those common to all tidal ports.

It is the consensus of all those directly interested who appeared before the Commission that the maintenance of a pilotage service is necessary in the public interest because, without this service, the Fraser River would be closed to ocean-going vessels for all practical purposes and the economy of New Westminster Harbour and the Fraser Valley would be severely affected.

When Pacific Coast Terminals Company Limited prepared its submission for the Commission, it made a special study of the necessity for a pilotage service on the Fraser River and reached the conclusion that it is required, principally to ensure safety of navigation. This service "must of necessity be maintained by skilled, experienced and competent pilots because of the very nature of the conditions against which they must work". The Company pointed out that in ports with restricted entrance and narrow channels one casualty or one grounding can stop all traffic, and expressed the opinion that such a misfortune should be guarded against. It added that the problems

of the Fraser River require specialized knowledge; while certain basic problems are common to all ports and restricted waters, there are some difficulties that are peculiar to the area.

Pilot H. L. Gilley testified that Masters of foreign ships (which all employ pilots) do not normally acquire experience or local knowledge in the navigation of their ships up or down the Fraser River because they seldom take part, preferring to trust the pilots, and only on rare occasions do they berth or unberth their ships. The pilots emphasized that those who navigate the river must be constantly aware of its variable conditions and that such knowledge can only be acquired by many years' experience and not by occasional visits.

The British Columbia Pilot, Volume 1, Sixth Edition, 1959 carries the following Caution (p. 97):

"Owing to the constant changes in the channels of the Fraser River and their lighting and buoyage, its navigation by a stranger without a pilot is not advisable, and only the outer lights, and light-buoys are described in this work."...
"Both beacons and buoys are liable to be washed away, particularly during freshets".

Figures supplied by the Dominion Bureau of Statistics on arrivals in Fraser River ports of vessels over 250 N.R.T. and the Pilotage Authority's Annual Reports (Exs. 149 and 161) are the basis of the following comparative table which indicates the extent of the use made of the pilotage service in this District. Contrary to the corresponding table that appears in Section One (page 40) for the British Columbia District it was not necessary to multiply the D.B.S. statistics by two because the Pilotage Authority's Annual Reports give comparable information in terms of vessels.

	(1)	(2)	(3)	(4)	(5)	(6)
Year*	Total Number of Vessels over 250 T.	Number of Vessels Employing Pilots	Percent- age of (2) over (1)	Total NRT of Vessels over 250 T.	NRT Piloted	Percent- age of (5) over (4)
1959.....	2,520	444	17.6	3,078,999	1,844,532	59.9
1960.....	2,461	594	24.1	3,743,790	2,449,481	65.4
1961.....	2,680	598	22.3	3,873,211	2,513,175	64.9
1962.....	2,354	546	23.2	3,546,248	2,309,991	65.1
1963.....	2,512	574	22.9	3,918,852	2,570,930.5	65.6
1964.....	2,801	621	22.2	4,242,754	2,728,736.5	64.3
1965.....	3,235	598	18.5	4,670,158	2,634,144	56.4
1966.....	3,592	496	13.8	4,772,627	2,290,216.5	48.0

* The aggregate NRT piloted for the year 1967 is not available since no record of NRT is kept on account of the change from net to gross tonnage.

The ferry traffic tends to distort the information derived from the D.B.S. statistics. Arrivals of ferry vessels are not counted if they operate between berths within a given port but, if they ply between different ports, there is an arrival each time they arrive at a port. In order to depict maritime traffic as accurately as possible the incidence of ferry traffic was ascertained. On the Fraser River there are two ferry services in operation (Secretary's letter Feb. 16, 1965, Ex. 1427(w)):

- (a) the Canadian National Railway S.S. *Canora*, 2383 gross tons, carrying rail cars to Victoria; she makes a return trip daily, is exempt and does not employ a pilot;
- (b) the Liberian registered S.S. *Alaska*, 5593 gross tons, carrying rail cars between New Westminster and Whittier, Alaska; she commenced operations in June, 1964, makes one round trip in approximately a week; is not exempt and employs a pilot.

The data in this table compared to those in the similar table for the B.C. Pilotage District (p. 40) indicate that the Fraser River is decreasing in importance and is more and more inaccessible to present day ocean-going traffic. This comparison gives the following information in percentages:

Increases Between Year 1959 and Year 1966	British Columbia District	New Westminster District
In number of ships.....	57.4	42.5
In number of ships piloted.....	16.2	11.7
In aggregate tonnage.....	76.8	55.0
In aggregate tonnage piloted.....	79.1	24.2
In average tonnage per ship.....	12.3	8.8
In average tonnage per ship piloted.....	54.2	11.1

It shows also that the pilots are employed by the larger vessels:

Situation for Each Year	British Columbia District		New Westminster District	
	% of vessels piloted	% of aggregate tonnage piloted	% of vessels piloted	% of aggregate tonnage piloted
Vessels piloted 1959.....	15.6	40.7	17.6	59.9
Vessels piloted 1966.....	11.5	41.2	13.8	48.0

The increase in maritime traffic between 1959 and 1966 is due to the increase in the carriage of coastwise cargo, as shown by the marked difference between total ships and tonnage and ships and tonnage piloted. The following figures provided by the Dominion Bureau of Statistics concerning the cargo handled in the Pilotage District of New Westminster (2,000 lbs to the ton) are also informative:

Year	Foreign Cargo (tons)	Coastwise Cargo (tons)
1959.....	1,100,216	1,842,748
1960.....	1,295,947	2,499,630
1961.....	1,342,050	2,903,077
1962.....	1,114,963	2,878,176
1963.....	1,230,562	4,462,549
1964.....	1,389,501	3,660,940
1965.....	1,215,478	4,735,593
1966.....	1,487,068	5,419,588

(2) COMPULSORY PAYMENT OF PILOTAGE DUES

Although the governing Order in Council purports to impose compulsory Pilotage, the compulsory payment of pilotage dues is enforced instead. (Re legality vide pp. 247-8).

In practice, very few ships that are not exempt dispense with the services of a pilot and those that do are regular traders and are clearly of small size. In fact, from 1959 to 1965 inclusive there was only one such vessel which did not employ a pilot: the small M.V. *Indian*, 323 N.R.T., 405 G.R.T., a United States coaster trading between the Fraser River and Puget Sound ports with pulp and paper products. This vessel pays the minimum charge of \$32.50 and avoids paying the \$10 pilot boat charge by not employing a pilot. In 1966, there were 14 trips by M.V. *Indian* and 22 trips by the ferry (train) ship S.S. *Alaska*. In 1967, only the M.V. *Indian* and her sister ship, M.V. *F.E. Lovejoy* dispensed with the services of pilots. (Ex. 1427(n)).

It is worth noting that in no case did any non-exempt vessel transit the railway bridge or effect a movage without a pilot.

The following table indicates the incidence of both the number of trips and the total earnings of the District (excluding pilot boat and radiotelephone fees) when non-exempt vessels dispense with a pilot (Exs. 149, 152 and 1427(n)):

Year	(1) Total number of trips	(2) Number of trips without a pilot	(3) Percentage of (2) over (1)	(4) Percentage of revenues derived from this source
1959.....	888	0	0	0
1960.....	1188	39	3.28	0.87
1961.....	1134	59	5.20	1.39
1962.....	1038	56	5.40	1.46
1963.....	1100	48	4.36	1.14
1964.....	1194	50	4.19	1.11
1965.....	1152	28	2.43	0.66
1966.....	954	36	3.77	1.96
1967.....	947	24	2.53	0.59

The exemptions are those listed in sec. 346 C.S.A. plus the general exemption provided in the By-law for small foreign ships whose tonnage does not exceed 250 N.R.T. The compulsory payment system is fully enforced and there are no unofficial exemptions as in the B.C. District. For instance, there are two ferry services operating out of the Fraser River: The C.N.R. S.S. *Canora*⁷ carries rail cars to Victoria and the Liberian registered S.S. *Alaska* carries rail cars between New Westminster and Whittier Alaska (for additional details vide Sec. One, pp. 57-58). The *Canora* is exempt under subsec. 346(e)(iv) C.S.A. and does not employ a pilot. The *Alaska* is not exempt for the sole reason that she is not a steamship "registered in any part of Her Majesty's dominions". S.S. *Alaska* always employs a pilot in the New Westminster District except for 11 trips during the summer months of 1966 but, as seen earlier, this is not always the case when she transits the B.C. District (Exs. 1427(n) and (w)).

In the New Westminster District, as elsewhere, the Pilotage Authority has purported to extend the application of legislation, *inter alia*, of the compulsory payment system, to vessels that do not fall within the statutory definition of "ship" (vide Part 1, pp. 213 and ff. and pp. 218 and ff.). For the reasons given in Part I, pp. 218 and ff., this is illegal.

In the regulation definition of "vessel" an indirect exemption is provided for scows to which a very restrictive definition is given (subsec. 2(j)): "scow" means any undecked barge having no living accommodation".

⁷ In June, 1968, S.S. *Canora* was reported laid up and offered for sale. There was no substitute ship on the Fraser River.

This limited definition has given rise to much contention because it would have the effect of making barges that do not fall within its terms subject to the compulsory payment of dues. *Inter alia*, there are barges known as "hulks"—former sailing vessels or steamships with decks and engines removed—which are used to carry pulpwood chips from Fraser Mills and New Westminster to Ocean Falls, Powell River and other coast ports. These hulks are 300-350 feet long, 50 feet wide, draw over 20 feet and having living accommodation for three persons. The Secretary of the Pilotage Authority further reported that on the Pacific coast it is the practice to transport lumber from sawmills to ship-side on "scows". "These are decked and the lumber is carried on this deck. Originally these were wooden vessels approximately 30 by 90 feet and smaller. Today they are mostly being constructed of steel and are many times larger, some carrying up to 2 million feet". These hulks and barges are steered by the men on board. Not being "steamships" they would not benefit from the statutory relative exemption of subsec. 346(e)(iv) even if registered in one of Her Majesty's dominions, although they are strictly local traders. This situation is not specifically covered in the Act because these vessels are not ships and, therefore, are not affected (and can not be) by the present pilotage statutory provisions of Part VI C.S.A.

Pilotage dues have been charged towed barges carrying oil. Since the oil was in tanks, the vessel was considered a barge and not a scow.

Although no distinction is made concerning the country of registry in the definitions of "vessel" and "scow" in the By-law, the Pilotage Authority has considered a non-Canadian scow as not exempt. Furthermore, American barges which are in excess of 250 N.R.T. are charged pilotage dues. The case of the American barge *Foss 98* (2,286 tons net) which was brought to the Commission's attention (Ex. 1429) is a good example of the situation that developed. Tugs and tows belonging to Foss Launch & Tug Co. of Seattle, Washington, and registered in the U.S.A. had apparently been calling regularly at ports or landings on the Fraser River without taking a pilot and without being required to pay dues. It may have been that both the tugs and tows benefited from the small ship exemptions, or that the tows were scows, or that their presence passed unnoticed. But on October 27, 1961, the large *Foss 98* came inbound to berth at the Dow Chemicals wharf, a pilot embarked at Sand Heads and dues were charged both for the inward and outward voyage. The Foss Launch & Tug Co. protested but was told that, since the barge was over 250 N.R.T., it was subject to the compulsory payment of dues. It is interesting to note that in the case of composite navigation units, such as tugs and tows, each component is treated as a separate vessel for pilotage charges. In this case, the tug was considered exempt because its net tonnage was under 250 tons, but the barge was assessed on its own tonnage and its draught inward and outward. If there had been more

than one tow, each would have been charged separately, unless it was exempt on account of its tonnage. However, the pilot boat charge and the transportation expenses of the pilot would be charged only once (Exs. 1429 and 1525(g)). (Re the computation of dues for composite navigation units, vide B.C. Recommendation 5).

3. ORGANIZATION

Of all the large Pilotage Districts in Canada the New Westminster District follows most closely the original structure provided in the governing pilotage legislation (St. John's, Nfld., did not come under the Canada Shipping Act until 1967). The Pilotage Authority is a three-man Board, the District is almost financially self-supporting and the Authority is autonomous (vide Part I, C. 3, pp. 52 and ff., and C. 5). However, its pilots do not enjoy the status of free entrepreneurs, the only status contemplated by the Act (Part I, C. 4). Since 1930, the pilotage service has been controlled by the Authority and the pilots are treated as if they were the employees of the Authority.

(1) PILOTAGE AUTHORITY

The Pilotage Authority is, and always has been, a three-man Board whose members are recruited locally as contemplated by sec. 325 C.S.A.

The Government's control over the Pilotage Authority's activities is through the Governor in Council in the exercise of his various powers with regard to pilotage under the Canada Shipping Act (vide Part I, p. 53) and through the surveillance power of the Minister of Transport (Part I, pp. 62 and ff.). Since the subdivision of the District in 1904, except for the appointment of the members of the Pilotage Authority and its Secretary, the Governor in Council's function has consisted of automatically confirming the By-laws made by the Pilotage Authority when they are presented for approval by the Department of Transport. As for the Department of Transport, its rôle has been one of non-involvement in the District's administration. It has limited its concern to receiving the annual report the Pilotage Authority is required to transmit to the Minister under sec. 332, C.S.A., advising the Pilotage Authority when its advice is requested, serving as liaison between the Governor in Council and the Pilotage Authority regarding the approval of By-laws and, finally, providing pilot vessel service at Sand Heads through its local representative, the B.C. Regional Superintendent. The attitude of non-involvement has resulted in failure to discharge its surveillance function. No report other than the annual report required by the Act is ever requested and this annual report is merely filed without being scrutinized, as is shown by the existence of obvious irregularities which have been allowed to continue unchecked.

The Department also serves as liaison between the local Authority and other Departments of Government, such as the Department of Public Works for dredging.

The members of the Pilotage Authority of the New Westminster District meet when required as arranged verbally by the Secretary. They have no regular annual meeting but convene once a year to approve the financial report. The Secretary takes the minutes.

Neither the District By-law nor the Canada Shipping Act specifies the qualifications of the Authority's members (vide Commission's General Recommendations 16 and 17). Local shipping interests have complained that the members of the New Westminster Pilotage Authority lack technical knowledge, which would be inconsistent with their quasi-judiciary powers under sec. 9 of the By-law (passed under sec. 329(k) C.S.A.), to adjust disputes between "masters of ships, pilots and others respecting pilotage matters". Pacific Coast Terminals Limited submitted that the local Pilotage Authority should be competent to solve the pilotage problems of the District. This, the Company claimed at the Commission's hearing, was not the case, with the result that the pilots, because of their technical knowledge and in the absence of any other competent authority, had been forced into the undesirable position of adjudicating pilotage problems themselves. While agreeing that these problems had been resolved fairly, the Company considered that it is wrong in principle and likely to lead to a conflict of interests for any group to be required to decide a case in which it is itself involved.

There has been no formal recourse to the Authority to adjust a dispute pursuant to sec. 9 of the By-law but it was stated that such a step would be ineffective because it is claimed the Pilotage Authority lacks technical knowledge. They would have to consult the pilots (the only available experts on local pilotage matters), rely on their advice and then make their decision. In the opinion of the Secretary of the Pilotage Authority, the end result is that the pilots' decision is final.

To the Secretary's knowledge, the pilots had never refused "to conduct" a vessel on the ground of danger but they had made strong recommendations against piloting vessels in certain areas. Shipmasters had always complied with the pilots' advice.

Complaints, however, were occasionally received that certain ships did not trade in certain areas. When the complaints came in, the subject was reviewed and the pilots consulted. On their advice the safety regulations were left unchanged. On all occasions, the Pilotage Authority considered it must be guided by the pilots' advice on safety regulations.

Pacific Coast Terminals Limited complained that the shipping interests had not been called before the Pilotage Authority to give evidence, or to provide further evidence in support of their claims, and that only the pilots had been consulted.

The Company added that the pilots should not decide on problems arising out of the services they perform but that another competent body should act as arbiter.

It was recommended by Pacific Coast Terminals Limited that disputes be adjudicated, not by a Magistrate or County Court Judge or some authority unacquainted with the Fraser River, but by a special group recruited from, and connected with, all the interested parties. In addition, the Company suggested that there should be some means of appeal (vide Commission's General Recommendations 30 to 38, Part I, pp. 565 and ff.).

The Vancouver Chamber of Shipping also urged that traffic control within the Harbour of New Westminster, i.e., practically the whole District, should not be left to the pilots or to the Pilotage Authority on the ground that the Harbour Commissioners should be responsible for the safety of the harbour. The Chamber objected violently to control of the harbour by the pilots, i.e., to the mandatory safety regulations issued by the Authority on the advice of the pilots. The New Westminster Harbour Commissioners took the same stand. As stated earlier (p. 287), the Vancouver Chamber of Shipping and the Harbour Commissioners failed here to distinguish between the right of vessels to navigate and the duty of the licensed pilots to navigate those ships whose Masters wish to use their services. However, if pilotage were to be made compulsory, the situation would be basically changed since the Pilotage Authority would become responsible for the safety of navigation wherever pilotage was compulsory in its District, and to the extent it applied. In that event, the Authority must have some control of navigation in order to prevent any vessel considered a safety risk from navigating without a pilot (vide Commission's General Recommendations 22 and 23, Part I, pp. 532 and ff.).

Although nowhere in the Act or elsewhere is there specific authority for the Pilotage Authority to own property, to enter into contracts, to sue or be sued, these powers are ancillary to those specifically granted to the Pilotage Authority, and the Pilotage Authority possesses them to the extent necessary for the full exercise of the specific powers granted to it by the Act. Otherwise, such exercise becomes *ultra vires*.

The New Westminster District Pilotage Authority has assumed such powers and exercised them without seeking the approval of the Governor in Council required by sec. 328 C.S.A. when applicable. The Department of Transport was aware of the Authority's action (vide letter February 11, 1965, Ex. 1427(u)). Aside from the question of not obtaining the approval of the Governor in Council, most contracts that were made by the Pilotage Authority were illegal because they could not be related to a specific power granted by the Act.

These ancillary powers are studied in Part I, C. 8, pp. 315 and ff.

(a) *Borrowing Power*

Since the present Secretary was appointed in 1952, the only occasion when money was borrowed was in 1958 to refit the pilot vessel after the Department of Transport's request that it be brought under Steamship Inspection Regulations (p. 323). On February 3, 1958, a \$25,000 loan was negotiated with the Royal Bank of Canada at six per cent interest, to be repaid in monthly instalments. The final payment by the Pilotage Authority was July 31, 1959. The outstanding balance of \$16,720.66 was paid by the Government when the ownership of the pilot vessel was transferred to the Department of Transport. This loan had been authorized by the New Westminster Pilotage Authority at its meeting on January 22, 1958, on the basis that it would be repayable at the rate of five per cent of the gross pilotage revenue of the District with a minimum of \$5,000 per year (Ex. 1427(s)). The promissory note was signed in the name of the New Westminster District Pilotage Authority by its Chairman and its Secretary (Ex. 1427(u)(1)).

(b) *Right to Own Pilot Vessels*

Prior to 1930, each pilot was responsible for his own arrangements to embark and disembark off Sand Heads. The 1930 By-law changed the structure of the service from private enterprise to a service fully controlled by the Authority (p. 253). The Pilotage Authority then undertook to provide and operate the pilot vessel service to and from Sand Heads. Sec. 9 of the 1930 By-law provided that "All vessels required for the use of the Pilotage Service shall be purchased or built and payment made therefor out of the revenues of the District and be owned in the name of the Pilotage Authority".

Sec. 10 further provided that "The pilots shall be deemed not to have any individual claim or interest in any vessel or vessels registered in the name of the Pilotage Authority" (Ex. 1427(g)).

The situation changed again when the Department of Transport became responsible for the pilot vessel service in 1959. The only pilot vessel owned at that time by the Pilotage Authority was *Fraser Pilot No. 1* since renamed *Canada Pilot No. 24*. Despite the By-law requirement, this vessel was never registered in the name of the Pilotage Authority as such. The registered owners are listed as follows (Ex. 1427(u)(2)):

- (1) July 7, 1937, Francis P. Matheson, Secretary, Pilotage Board, New Westminster, B.C., 64 shares.
- (2) June 25, 1945, Bill of Sale, 64 shares from F. P. Matheson to William Gifford, Merchant of New Westminster, Kilburn King Reid, Real Estate and Insurance Agent of New Westminster, and George Livingstone Cassady, Barrister and Solicitor of New Westminster, as joint owners.

- (3) December 1, 1953, Bill of Sale, 64 shares by the above-mentioned joint owners to Alexander Sutherland Duncan, Barrister and Solicitor of New Westminster.
- (4) June 19, 1957, to the Estate of the late Alexander Sutherland Duncan.
- (5) June 19, 1957, Bill of Sale, 64 shares from the Duncan Estate to Jack M. Warren of New Westminster, Secretary-Treasurer.
- (6) April 14, 1958, Bill of Sale, 64 shares from Warren to W. E. A. Mercer, Shipbuilder of New Westminster, Kilburn King Reid, Real Estate Agent of New Westminster, Harry McDonald Craig, Traffic Manager, New Westminster, as joint owners.
- (7) December 9, 1959, Bill of Sale from the above mentioned joint owners to Her Majesty the Queen in right of Canada represented by the Minister of Transport, Ottawa, Ontario.

When the Department of Transport became interested in the pilot vessel and instructed that it be brought under the Steamship Inspection Regulations, they requested that the pilot vessel be registered in the name of the individual members of the Authority rather than in the name of Mr. Warren (Pilotage Authority meeting July 3, 1957, Ex. 1427(s)). The legal advice given to the Department of Transport at that time was that the Pilotage Authority as such, being unincorporated, could not be registered as owner (Ex. 1427(u)(11)). The Pilotage Authority as such was never the registered owner of the pilot vessel: the registered owners were either the Secretary-Treasurer or the Commissioners individually as joint owners, but their relation to the Pilotage Authority is not mentioned in the register. The Bill of Sale to the Crown dated December 9, 1959, was effected by the Commissioners in their individual capacity and as joint owners; no mention appears in the deed as to their official function of Pilotage Authority (Ex. 1427(u)(4)).

(c) *Right to Own Real Estate*

Prior to 1959, the Pilotage Authority was the owner of two waterfront lots Ten (10) and Eleven (11) Block One (1) of Section Ten (10) Block Three (3) North Range Seven (7) West Plan Two Hundred and Forty-nine (249) New Westminster District, that is, at Steveston. While the title of the acquisition was not obtained (Ex. 1427(u)(8) is the transfer from the Duncan estate to Jack Matthews Warren personally on May 16, 1957), there is a "Certificate of Indefeasible Title" in the name of Jack Matthews Warren as owner, dated June 25, 1957 (Ex. 1427(u)(9)). The deed of sale or transfer from Mr. Warren to the Crown was not obtained. As shown by Order in Council P.C. 1962-1826 (Ex. 1427(u)(10)), this land was later transferred from the Department of Transport to the Department of

Public Works for management, charge and direction. This land was never registered in the name of the Pilotage Authority, and the capacity in which the registered owners acted is not disclosed in the titles.

(d) *Contracting Powers—Lease of Berthing Facilities*

The Pilotage Authority leased from the Minister of Lands and Forests for the Province of British Columbia, lot 6363—the piers and berthing facilities in front of its real property described in (c) above, i.e., lots 10 and 11.

However, the lease, dated June 13, 1953, was not in the name of the Authority but of Alexander Sutherland Duncan (Ex. 1427(u)(4)). A second lease dated May 16, 1957, also contained the transfer from the Duncan estate to Jack M. Warren personally (Ex. 1427(u)(5)). On February 12, 1960, the Province of British Columbia “reserved and set apart (this lot) for the Department of Transport, Canada, as a boat mooring site for so long as required for such purpose”. Here, again, the name of the Pilotage Authority never appeared in the title.

(e) *Contracting Powers—Subletting*

A portion of lot 6363, on lease from the British Columbia Government, was sublet to Imperial Oil Ltd., first on June 13, 1953, for a term expiring December 31, 1955, and then again on September 15, 1955, for a new term expiring June 10, 1963 (see endorsements on the Head Lease, Ex. 1427(u)(6)). These subleases were made by the Pilotage Authority. The terms and conditions of the renewal of the sublease were discussed at various meetings of the Pilotage Authority in 1955 and an agreement was reached (at the Pilotage Authority’s meeting of November 4, 1955) on a monthly rental of \$75 for a period of eight years. The rent was credited to the Superannuation Fund (meeting February 28, 1956) and, after the abolition of the Superannuation Fund, this rental revenue was credited to the general account (meeting November 4, 1958, Ex. 1427(s)).

Despite the foregoing, the name of the Pilotage Authority does not appear on the sublease dated September 15, 1955 (the previous lease was not obtained) (Ex. 1427(u)(7)). The sublease is granted by Alexander S. Duncan personally.

(f) *Right to Own Movable Property*

Aside from the question of the pilot vessel, the Pilotage Authority has owned, and still owns, some movable assets. At the end of 1963, these were valued at \$1,349.99 and were made up of office equipment, i.e., desks, typewriters, etc. (Ex. 152-1963). These are necessary for the operation of the District and, therefore, their purchase price is part of the operating expenses. Although no purchase documents were filed, it is logical

to assume that the purchase of these small items was effected in the name of the Pilotage Authority. On none of these occasions was the approval of the Governor in Council obtained.

(g) *Contracting Powers—Purchase of Goods and Services, Hiring of Personnel, etc.*

The Pilotage Authority is currently contracting with third parties for the purchase of necessary supplies, e.g., stationery, food for the pilots in the pilot vessel, etc. At the pilots' request, the Authority approved the purchase of eight two-way radio sets for use by the pilots at a total cost of \$436.80 (meeting February 7, 1964).

The Authority rents the premises it occupies at New Westminster. This is part of its operating expenses. The rent was raised from \$75 to \$84 per month by the landlord effective January 1, 1964 (meeting February 7, 1964).

(h) *Right to Sue and be Sued*

There is no evidence to the effect that the New Westminster Pilotage Authority was ever a party to any litigation except that once it appears to have filed a proof of claim of \$184.75 for dues owed by a bankrupt steamship company (Alaska Freight Lines of Seattle) for two invoices for services performed in March, 1959, (Commission's meetings August 21 and October 15, 1959, Ex. 1427(s)). The collection of pilotage dues is effected in the name of the Authority (see invoice form, Ex. 154).

COMMENTS

The various contracts made by the Pilotage Authority with regard to the pilot vessel, the lease of property for the mooring station at Steveston and the subleases and all the contracts related to this lease were illegal because to operate a pilot vessel service is not among the powers granted by the Act to the Pilotage Authority. However, because this is part of fully controlled pilotage and because it meets a definite requirement of the service, this Commission has recommended in its General Recommendations that these powers be granted to the Pilotage Authority (vide Part I, General Recommendation 14, pp. 495 and ff., and General Recommendation 18, p. 514).

The indirect method the Pilotage Authority had to adopt to enter into contracts and to own property clearly indicates how uncertain it was regarding its status as Pilotage Authority and the powers derived therefrom. This situation would be clarified if the Commission's General Recommendation 18 is implemented and the Pilotage Authority is given officially the status of a corporate body (Part I, p. 510).

(2) SECRETARY TO THE PILOTAGE AUTHORITY

The Secretary to the Pilotage Authority manages the business of the District and directs the pilotage service in the District (By-law, subsec. 3(1)).

He is in charge of the assignments of pilots (p. 340) and financial administration, including pooling pilots' earnings and dividing them into shares (p. 361). He does not possess or exercise any disciplinary powers (p. 334).

There are no written standing orders, but some temporary orders are in writing, e.g., the annual vacation list and the pilots' order of assignment.

The Secretary keeps a register of all assignments showing the name of the pilot, the ship, inward and outward pilotage, harbour movages, etc., and charges for detention, cancellation and transiting the railway bridge.

4. PILOTS

(1) RECRUITING AND QUALIFICATIONS OF PILOTS

There is no apprenticeship. Pilots are recruited directly from mariners who are not only qualified generally but also possess the required local knowledge.

When more pilots are needed, an advertisement is placed in the local newspapers. The Pilotage Authority does not have a waiting list of applicants but does keep applications on file. In addition to the advertisement, applicants whose names are on file are notified that there is a vacancy but they are not given any priority.

The latest advertisement was placed in the local papers October 25, 26 and 27, 1962 (Ex. 1525(b)). It was to fill one vacancy and it brought in 37 applications, of which only 12 had the necessary qualifications. Of the remaining 25, the majority lacked sufficient required experience and some were either over age or under age.

The Authority first examines the credentials furnished by the applicants and determines which ones meet the basic requirements of the By-law. During the last few years, the active pilots have been given the opportunity to inspect the applications received and give the Authority their comments. Then a Board of Examiners, as provided for in the By-law, is set up to examine those who possess the basic requirements.

The Secretary of the Pilotage Authority acts as Secretary to the Board of Examiners. For the examination held in 1962, the Board consisted of the assistant to the examiner, masters and mates, representing the Department of Transport; one pilot from the Pilots' Committee; a Master Mariner operating on the Fraser River, who represented a local company; and one member of the Pilotage Authority. There is no written examination but the verbal one covers all subjects. The results are given to the Pilotage Authority who makes the final selection. The candidate with the highest marks has always been selected, provided he meets all other requirements,

such as good conduct and physical fitness. For instance, the successful candidate in 1958 failed the medical examination and was not accepted.

The selected applicant is issued a probationary licence for a period of one year. During his first thirty days, he is not given a piloting assignment but is assigned to other pilots to observe and learn, particularly handling deep-sea vessels with which he is generally not familiar since his experience has usually been confined to tugs. There is no stipulated number of such assignments, but the probationary pilot is expected to gain as much experience as possible during this period.

After thirty days, he is given independent assignments commencing with those that are comparatively easy and progressing to those that are more difficult. He usually begins with daylight piloting involving easy berthing and movages. In about six months, he will pilot a ship through the railway bridge and for the remaining months of the year he will pilot throughout the District.

The Secretary of the Pilotage Commission stated that the above-mentioned method of training a probationary pilot is not covered by the District By-laws but that it developed over the years in the belief that, with the safety of navigation in mind, a pilot must know the area thoroughly and be well versed in ship handling before he is given an independent pilotage assignment. He added that an exception might possibly be made for a pilot who had previously worked regularly on the Fraser River.

The pilots as a group follow the performance of the probationer, consider his ability at their meetings and decide what recommendations they should make to the Pilotage Authority about the assignments he should be given as his training progresses.

The probationary pilot is paid 75% of the remuneration of a regular licensed pilot, i.e., a $\frac{3}{4}$ share in the pool, during this first year in accordance with subsec. 10(2)(c) of the General By-law. Prior to the 1962 By-law, sec. 11 of the 1930 By-law (Ex. 1427(g)) left it to the Authority to determine the remuneration of the probationary pilots, provided it did not exceed 75% of the amount payable monthly to regular pilots. The minutes of the Authority's meetings (Ex. 1427(a)) show that on January 4, 1956, the successful candidate was "offered the position (of probationary pilot) at a salary of \$400 per month for the first six months and at the rate of 75 per cent of a pilot's share for the remaining six months of his probationary period".

At the end of one year, provided the pilots and the Secretary make favourable recommendations, the Pilotage Authority grants the probationary pilot a permanent licence. No probationary licence has ever been withdrawn. The By-law does not authorize the issuance of any other type of licence, but an annual licence for pilots between the age of 65 and 70 as authorized by sec. 338 C.S.A. may nevertheless be granted (Part I, p. 267). Subsec. 27(5) of the By-law deals with the required medical examination.

Certificates of Competency held by the seven active pilots in 1963 were (Ex. 173):

- 2—Master of a foreign-going steamship;
- 1—Master of a passenger steamship in the home trade;
- 1—Master of a tug in the home trade, 150 tons;
- 3—Master of a tug.

Captain H. L. Gilley, the Senior Pilot at the time (retired September 16, 1967), commented that the average Master Mariner would take considerably longer than the average tugboat Master to become familiar with the river. He added that all seven pilots licensed at that time had tugboat experience; three former pilots were deep-sea Master Mariners but all had had some training in tugs on the Fraser and, in his opinion, their deep-water certificates were of no assistance on the river. When he, himself, joined the service, he had had 13 years previous service in tugboats operating mostly on the Fraser River and he had never had an ocean-going command. He felt that he was like the other pilots of the District and that he had done well with experience in tugs only. The pilots' record is evidence of their qualifications. It is true that when he joined the pilot service from tugboats there was "a big difference between handling tugs and handling cargo ships" although vessels were somewhat smaller then. But it did not take him long to get accustomed to them and he felt that all the pilots on strength handle ships very well. Captain Gilley was of the opinion that their system of recruiting and training is adequate and that they do not need an apprenticeship system, apart from the probationary year now in use.

Once the permanent pilot licence is issued, the holder is unlimited with regard to tonnage, size or type of ship. Permanent pilots are all one class. The Authority has no power under the present By-law to oblige a licensed pilot to acquire new technical knowledge and experience. In 1964, the pilots requested permission to attend a Radar Simulator Course at the Vancouver Vocational Institute, which was granted (meeting of February 26, 1964, Ex. 1427(s)).

COMMENTS

It is noted that actual experience on the Fraser River is not made a prerequisite to admissibility as a candidate, and a candidate who has had actual experience in command of a vessel in District waters is not given precedence over one who has not (By-law subsec. 12(g)). Since the navigational problems met on the Fraser River are not encountered elsewhere on the B.C. Coast, it would appear that this provision (which is modeled on subsec. 15(g) of the B.C. District By-law) is deficient in this respect, particularly since there is no apprenticeship. It is true that local knowledge

is the most important part of the oral examination, but there is no guarantee the candidate possesses the required skill, i.e., the practical competency and experience to navigate in the District.

The adequacy of the training of pilots to handle large ships should be carefully looked into. The New Westminster pilots seem to be meeting difficulties where pilots of other Districts and other experienced mariners find few problems after proper training, e.g., navigation with tug assistance and piloting bridge aft ships. It might be found that the progressive training in the handling of large ships prescribed for former tugboat Masters during the first part of their probationary period as pilots is insufficient to make them as expert ship handlers as they ought to be, especially on the Fraser River where ship handling is not only as important as local knowledge but more important than anywhere else on the B.C. coast.

For other comments on the qualification requirements and the apparent discrimination against holders of ocean-going certificates of competency, reference is made to Section One, pp. 72-74, referring to the B.C. District system to which the New Westminster system is very similar.

(2) PILOTS' COMMITTEE AND PILOTS' GENERAL MEETINGS

The six or seven New Westminster pilots are not grouped in any association or corporation, although they are all individually members of the Canadian Merchant Service Guild, in addition to being represented by their own Pilots' Committee established under the District By-law (sec. 5).

The Pilots' Committee is a three-member committee elected annually as prescribed by sec. 5 of the District By-law. It is the practice to hold elections at an Annual General Meeting in January. This meeting is attended by all the pilots. Since they are a small group who work well together, everything goes smoothly. Nominations are made by motion and voted on by a show of hands.

The Pilotage Authority plays no part in the appointment of the Committee; its Secretary is merely informed by the pilots that the Committee has been elected and who its members are.

Committee meetings are not held regularly but only when business requires. However, it is an unwritten rule that the Committee meets at least once a month.

At these meetings, any subject that concerns pilotage and pilots is dealt with, e.g., a recommendation to the Authority about the schedule of annual leave; a recommendation to the Harbour Authorities about permissible draught as a result of silting that has been reported by a pilot; a recommendation to the Authority on the assignments that should be given a probationary pilot. One of the main topics at the end of 1962 and beginning of 1963 was the brief to be presented to this Commission.

The Pilots' Committee does not handle any funds. When "bonuses and presents" (p. 367) are voted, these and other disbursements are paid by the Authority out of the Pilotage Fund.

The Committee makes a written annual report on its activities. This report is read at the Annual General Meeting and is also forwarded to the Pilots' Committee of the Canadian Merchant Service Guild. It is not a report to the Pilotage Authority.

It has been stated that the Pilots' Committee serves its purpose as liaison between the pilots, either as a group or as individuals, and the Authority. It obviates the problem of six or seven men facing the Authority with petty problems and complaints which can very often be solved at the Committee level. Furthermore, one of the main duties of the Committee is to advise the Commissioners on nautical matters.

Regular General Meetings of all the pilots are not held, aside from the Annual General Meeting in January at which the Pilots' Committee is elected. Other meetings are arranged when there are subjects for discussion and the service permits.

(3) LEAVE OF ABSENCE

Annual leave, temporary leave and sick leave are provided for in sec. 26 of the By-law.

For their thirty-day annual leave the pilots prepare a schedule which they recommend to the Authority. After consideration, the Authority makes its own decision which is issued as a written order.

Although there is no provision in the By-law for days off during any month, the pilots arrange among themselves to take three or four days off. This was increased to five at the pilots' request (Authority's meeting February 26, 1964, Ex. 1427(s)) workload permitting, the remaining pilots doing all the work. This procedure has the approval of the Pilotage Authority. The extent of time off varies according to the pressure of work and in peak periods off-duty time is cancelled. While this monthly leave is not specifically provided for in the By-law, it could come under subsec. 26(2) which enables the Authority to grant temporary leave of absence "at such times and on such conditions as the Authority determines".

During unofficial monthly leave, the names of the pilots are kept off the roster, but they are liable to be called if the remaining pilots can not meet the demand for service.

The sick leave provisions of the By-law (sec. 26) are adhered to (Ex. 1427(o)). As of March, 1963, leave with half pay or without pay had not been granted since 1957 and the total amount of sick leave granted to any pilot in any one year had not exceeded two months. In 1956 and 1957, there were three occasions when pilots had used up their sick leave with

pay and were granted sick leave with half pay and without pay as necessary with a consequent reduction of their remuneration. One pilot who was injured on duty in 1957 was granted leave of absence on full pay for a month in accordance with subsec. 26(9).

(4) STATUS OF PILOTS

When the Pilotage Authority assumed control of the pilotage service in 1930 (p. 253) the pilots' status became doubtful. As seen earlier, the same situation arose in other Districts.

The pilots do not consider themselves employees of the Pilotage Authority but self-employed persons, although they recognize that they must abide by the regulations drawn up by their Pilotage Authority. Because they are the experts in their field, they hold that they have the final word in the conduct of pilotage and they complain that they play too small a part in the organization and management of the service. They request a more active share, *inter alia*, in the examination, selection and appointment of pilots.

They consider that the members of the Pilotage Authority's staff are their own employees. In his testimony before this Commission, the Chairman of the Pilots' Committee stated that when the Pilotage Authority operated the pilot vessel service "we also had several men in our direct employ . . . they were pilot boat crews and our office staff". He added that now the pilots have only the office staff as their employees. Using the same false reasoning as the shipping interests when they call the pilots their employees, he explained that the members of the staff are their employees because "we pay for them".

On the other hand, when their private interest requires that they be considered employees of their Pilotage Authority they do not hesitate to call themselves such and take full advantage of that status. This is how they benefit from the Workmen's Compensation legislation of the province of British Columbia. They are also classified as employees for their group medical plan and accident insurance which is available to employees only. Their income tax deductions are made at source, as is done for employees, and all expenses incurred in the course of their duties are reimbursed by the Authority as operating expenses of the District. Similarly, their group expenses, such as health plan premiums, convention charges, cost of food in the pilot vessel, gifts and bonuses, are paid out of District revenues and the earnings they report for income tax purposes are only the net share they have received prior to income tax and Canada Pension Fund deductions. This is treated as salary.

When the question of contracting out a pension plan was discussed, they were reminded by the Department of Transport in a letter dated July 9, 1958, that "the legal relationship existing between the Pilotage Authority

and its licensed pilots is not one of employer and employee" (Ex. 1427 (p)). Nevertheless, in the pension contract they negotiated with the North American Life Insurance Company they are shown as the employees of the New Westminster Pilotage Authority. The Chairman of the Pilots' Committee explained that the question of their status created difficulty with the insurance company because the pension plan it was able to furnish applied only to employees. It was finally concluded that they were employees and some justification for this decision was found in subsec. 10(5) of the District By-law because individually the pilots have no choice in the matter of fixing the contribution to the pension plan, their Pilots' Committee acts only in a consultative capacity and the contributions are determined by the Pilotage Authority.

Furthermore, the pilots are treated in the General By-law as if they were employees of the Authority; *inter alia*, subsec. 10(3) fixes their remuneration and sec. 26 provides for leave of absence with pay, with half pay and without pay. The minutes of the pilots' meetings indicate that they themselves refer to their remuneration as being a salary, e.g., at a meeting held February 23, 1961, they considered the question of "termination holiday pay for pilots retiring" (Ex. 158).

The pilots in the New Westminster District have the ill-defined and ambiguous status of *de facto* employees of their Authority. (For comments, vide Part I, page 82.)

However, they have the right concept of their status in relation to the Master when on board ship (vide Part I, pp. 26 and ff.). Pilot H. L. Gilley considers a pilot a person who, because of his local knowledge, is qualified to take charge of a ship entering or leaving harbour, or navigating on a river or in coastal waters. A pilot is an adviser to the Master and knows that it is always the Master's privilege to take over while he is in charge of navigation. The Master never relinquishes command even when he requests a pilot to navigate.

The Chairman of the Pilots' Committee in 1963, Pilot O. B. Spier, stated that the duty of the pilot to the Master is the safe conduct of his ship from one place to another.

The Harbour Master in 1963, Captain J. W. Kavanagh, stated that he knew of several occasions when a Master had not followed a pilot's advice about berthing or departing but these had not resulted in accidents. He acknowledged, however, that these instances were not comparable to transiting the railway bridge. S.S. *Picardy* was mentioned as such an example. The Master and the pilot disagreed whether she should be berthed starboard side to or port side to in New Westminster. The Master took over from the pilot and berthed the ship without incident. (Re status of the pilot on board, vide Part I, pp. 22 and ff.)

(5) PILOTS ON STRENGTH

At the time of the Morrison Commission in 1919, there was only one pilot on strength in the District. Since there was not enough traffic to produce adequate remuneration, he had to be paid by the municipal authorities of New Westminster. In 1947, when Captain Slocombe made his survey, there were four pilots on strength. In 1952, there were five pilots and their number was increased to seven the following year. In 1967, it was reduced to six when the vacancy created by the retirement of Pilot H. L. Gilley was not filled.

On May 6, 1968, the Secretary of the Pilotage Authority reported as follows (Ex. 1525(f)):

"We are presently operating with 6 pilots on a trial basis. The pilots requested a delay in the appointment of another pilot to see if the downward trend in shipping will continue. Also, to see what effect the proposed establishment of the super-port at Roberts Bank may have on this port".

A temporary licence was issued April 1, 1963, to retired Pilot Mungo Duncan, then 62 years old, for the period ending June 30, 1963, to act in an emergency or on special occasions, a special remuneration to be arrived at, if and when his services were used. However, he was not employed as a pilot and, since there did not seem to be any necessity for an emergency pilot, his temporary licence was not renewed (Ex. 1427(x)). However, no mention of this temporary licence appears on the Pilotage Authority's 1963 annual report (Ex. 149). There is no provision in the present General By-law for issuing such a temporary licence and there was none at that time. Therefore, this temporary licence was void.

In 1952 or 1953, the pilots requested an increase in their number because their workload was too heavy. This request was studied and granted by the Authority which was able to appreciate their workload from statistical information provided from their records. Unlike the regulation in the British Columbia Pilotage District, sec. 4 of the By-law does not require prior consultation with the Pilots' Committee before changes are made in the pilots' establishment but, as seen above, this is done in practice.

(6) ADMINISTRATIVE INQUIRIES, REAPPRAISAL AND DISCIPLINE

Since the Minister of Transport is not the Pilotage Authority in the New Westminster District and also because the Department of Transport's policy is to avoid involvement in the affairs of Commission Districts, there is no possibility of confusion between the powers of the Minister of Transport and those of the Pilotage Authority with regard to investigation, nor is there any likelihood that the Pilotage Authority could succeed in making the Minister use his powers of investigation in matters that primarily concern the Pilotage Authority, such as enforcement of discipline. It is also to be

expected that, if and when the safety of navigation is involved, the Minister will act *proprio motu* under Part VIII C.S.A.

In fact, it does not appear that any inquiry under Part VIII C.S.A into a casualty involving a New Westminster licensed pilot, or into the fitness of any District pilot (Exs. 1525(b) and (e)), has ever been carried out, at least not within the last ten years.

On the other hand, no investigation, properly speaking, is ever carried out by the Pilotage Authority or by any one on its behalf. Up to the time of the Commission's hearings in New Westminster in March, 1963, no use was being made of the Casualty Report Form which the pilots are supposed to complete every time they are involved in a shipping casualty or in any unusual navigational incident as required by subsec. 20(3) of the District General By-law. Since all casualties and incidents have been of a minor nature, the verbal reports made by the pilots to the Pilotage Authority's Secretary were considered sufficient. In fact, the minutes show that every such casualty or incident was studied by the Pilotage Authority at its regular meetings. It would appear that the Commission made no inquiry itself and heard no witness nor any party involved but considered the matter on the basis of the report made by its Secretary. Since 1963, however, the written report form has been used.

In the New Westminster District, as elsewhere, reappraisal is confused with discipline and, according to its By-law, the Pilotage Authority purports to have disciplinary power over its pilots for any breach of regulations. The By-law does not contain any delegation of such alleged power to the Secretary, but this is logical since the Pilotage Authority is always readily available in the District. In practice, no use has been made of this disciplinary power as far as can be ascertained. In the last twenty years, no disciplinary action whatsoever has been taken against a pilot nor has any charge ever been laid for the violation of any statutory provision before a court of penal jurisdiction (Ex. 1525(e)).

The pilots' right to strike was unofficially recognized when they went on strike November 25, 1959 (vide pp. 357 and ff.) and refused to take any assignment from the Pilotage Authority, in that no disciplinary action was taken.

Up to 1963, no record was kept of shipping casualties and incidents. They are now listed in the Pilotage District Annual Report in the space allocated since then for that purpose.

Appendix C is a breakdown of the 31 casualties and incidents reported since 1956. They are grouped following the method described on pp. ~~115~~¹¹⁵ and ~~116~~⁹⁰. 89

In the minutes of the Pilotage Authority's meetings (Ex. 1427(s)) for the years 1955 to 1963 inclusive, five casualties involving pilots are recorded, all of a minor nature:

- (a) grounding—S.S. ^{ia}~~Hawaiah~~ *Craftsman* off berth C, Pacific Coast Terminals, 1956;

- (b) grounding—M.S. *Dongedyk* off Pacific Coast Terminals, Berth 1-C, in 1958;
- (c) grounding—SS. *Burrard* into bar above buoy #35, in 1959;
- (d) alleged collision—SS. *Orient Lakes* with tug and boom near buoy #16, February 14, 1961; the tug involved did not stop afterwards;
- (e) collision—M.S. *O.A. Brodin* and S.S. *Almavita* with a pilot aboard each vessel and subsequent grounding of S.S. *Almavita*, in 1961.

As seen earlier, the bridge aft M.V. *Kavadoro* touched the pier of the railway bridge while proceeding downstream in 1957. This incident was not reported because there was no reportable damage to the ship or the bridge. However, this incident caused restrictions to be imposed on all bridge aft ships.

The only reportable accident at the railway bridge involving a ship with a pilot aboard occurred about 1934 when an eight-knot ship proceeding downstream through the bridge at freshet time was carried too far north by the current and struck the protection work with her counter. (Vide p. 370.)

Apart from the minor casualties and incidents that occur while berthing or unberthing, most others are related to the specific hazards of navigation on the Fraser River, i.e., collisions or near collisions with fishing vessels and scows, and groundings with no damage to the ship. It would appear that they can be mainly attributed to the maximum use made of the available depth at any given moment and the ever changing conditions of the channel.

(7) WORKING CONDITIONS AND RESPONSIBILITIES

For the same reasons as in the British Columbia District (p. 112), ninety per cent of pilotage assignments in the New Westminster District occur at night; when adverse conditions prevail, they may last for many hours.

When the pilots are on "stand by", they consider themselves on duty because they are not free to do as they wish but must be available since they are liable to be called at any time. Frequently, they are called on their days off, particularly during the foggy season.

The pilots often have to spend long periods in the pilot vessel off Sand Heads, especially when ships are delayed. Because they have to wait on board, there is usually insufficient time between assignments for the pilot vessel to take them back to the Steveston pilot station. For the same reason, disembarked pilots also have to wait and, at times, there are four or five pilots in the pilot vessel. On one occasion, all seven District pilots were in the pilot vessel at one time.

If a ship is ready to depart but tidal conditions are not favourable, the pilots notify the ship's agent or the despatching office and do not go on board until the departure time they had set. Occasionally, if a ship is to

depart early in the morning, the pilots sleep on board to be ready at the agreed hour. If the weather is unfavourable at the planned time, they may have to remain on board or they may be able to go ashore in New Westminster. They watch the weather carefully and can rejoin the ship very quickly. No record is kept of time spent in this way because only departure time counts for the computation of pilotage dues, but waiting for the tide and the weather constitutes part of their duties and workload.

Also, if a Master wants to arrive at a special time, the pilots frequently board at Sand Heads and anchor for several hours to wait for a suitable tide.

Although most vessels are equipped with all the necessary navigational aids, such as radar and gyro compass, some still are not and, at times, even if these instruments are carried, they are under repair and not available for use. However, the New Westminster pilots place little reliance on the gyro compass—they must depend on their own vision because they are navigating in restricted waters. The pilots stated that they use these instruments as aids and guides only, but find them of considerable help. In their experience, modern radar sets are usually reliable but are sometimes in error. Captain Gilley reported that he had piloted a ship three or four miles on radar alone when he had no other visual means of communication with the shore and when he knew there was no other traffic in the vicinity. However, the pilots do not make a practice of depending on radar alone because they can not run a course of more than a mile and a half on the Fraser River before they are obliged to make a turn.

The pilots in the New Westminster District use echo sounding machines only when they anchor at the mouth of the river. They find these devices of no assistance when they are under way.

Occasional language difficulties have been experienced with foreign officers but the pilots are prepared and pay special attention to ensure that the officer of the watch and the helmsman interpret their orders correctly. The pilots give orders directly to the helmsman but sometimes the officer of the watch repeats the orders. If translation is needed, the pilots have to take into consideration the delay involved.

The pilots have no problems with quarantine and pratique. About once in five years a ship has been delayed while a medical officer made a quarantine inspection.

The pilots also act as advisers to the Pilotage Authority on nautical and pilotage matters.

The nature and organization of pilotage is profoundly affected by the peculiarities of the District waters. In addition to being required to take charge of the navigation of vessels when so requested, the pilots are called upon to act as advisers to Masters prior to sailing time. The pilots also

advise shipping authorities about the times of ships' movements and departures, which are controlled by the stage and range of the tide on account of the shallow channel. The pilot who is assigned to a ship for her inward voyage remains assigned to that ship throughout her stay in the District because of the knowledge he has acquired of her characteristics. He advises the Master or Agent on the permissible draught for different dates and tides. If it is desired to increase the draught, the pilot is consulted to set a suitable departure time. In this District, it is customary for the pilots to tender such advice and they consider it part of their duties to do so. The pilots estimated that they spend on the average half an hour to an hour per day calculating draught and sailing times. While any single calculation does not take long, they may have to repeat the work over a number of days because a ship's departure has been delayed.

The Vancouver Chamber of Shipping acknowledged the fact that the pilots have always been very co-operative in this respect. The pilots are frequently asked for information about local conditions. They have always been very helpful and have provided excellent information.

5. PILOTAGE OPERATIONS

(1) PILOT STATIONS⁸

Because the District is relatively small, it is generally agreed that one pilot station centrally located in New Westminster is all that is required. This, however, is primarily a matter of internal arrangement, the governing factors being the pilots' working conditions and operating costs, provided shipping will not suffer any inconvenience as a result of the internal arrangements adopted.

(2) PILOT BOARDING STATION⁸

Since the District consists of all the navigable waters of a river, there is only one pilot boarding station. It is located off the mouth of the Fraser one mile to seaward of Sand Heads and about seven miles from the pilot vessel mooring wharf at Steveston.

The pilots board and disembark at the various deep-water berths in the District. They seldom disembark from, or board, a ship at anchor because, if a ship must anchor on account of adverse conditions, the pilot is generally required to remain on board for security reasons. In this District, there is no need to embark or disembark beyond its limits because vessels must pass through the seaward boarding station on all inward and outward voyages.

⁸ For the definition of "pilot station" vide p. 91, and "boarding station" vide p. 98.

(3) PILOT VESSEL

Pilot vessel service at the seaward boarding station is provided only by *Canada Pilot No. 24*—a sturdy, well-manned vessel for which the pilots have nothing but praise. Their only complaint is that there are not two vessels since they often have to spend long hours at sea in the existing one waiting for their assignments.

In 1959, the Department of Transport assumed ownership of, and operational responsibility for, the pilot vessel (p. 322) and increased the boat charges from five dollars per trip to ten dollars, effective July 28, 1960.

The Pilotage Authority's first pilot vessel was built in 1933 and later sold. The second, *Fraser Pilot No. 1*, later renamed *Canada Pilot No. 24*, was constructed in 1937.

In 1958, when the Steamship Inspection Service of the Department of Transport reclassified it as a Class 3 Passenger Vessel, it had to be refitted and manned with two two-man crews, i.e., two Captains and two deck-hands alternating. The vessel was rebuilt at a cost of \$25,000. The financial burden imposed on the Pilotage Authority and the pilots by this expense, combined with the Department of Transport's delay in fulfilling its promise to have the pilot vessel service taken over by the Federal Government, resulted in the pilots' strike in November, 1959 (p. 357), the only one on record by the New Westminster pilots.

In November, 1959, the Department of Transport assumed responsibility for the pilot vessel service. For the nominal price of \$1 it took over the ownership of the vessel and the waterfront property at Steveston which was also owned by the Pilotage Authority and used as the pilot vessel mooring station. The Pilotage Authority received no other reimbursement for its capital expenditures, except that the Department paid the \$16,700 outstanding balance of the \$25,000 bank loan the Authority had borrowed the previous year (p. 322).

The assumption of the New Westminster pilot vessel service by the Department created a precedent because, until then, the Government had never provided any direct or indirect financial assistance to a District where the Minister was not the Pilotage Authority.

Because the pilots are sometimes obliged to remain in the pilot vessel for several hours, they keep a supply of food on board. They each paid five to seven dollars a month out of their own money and, at one time, the pilots even supplied food for the vessel's crew. Now, all or part of this expense is borne by the District, as is shown by an item that first appeared in the 1963 Financial Report (p. 367).

The pilots recommend that a second pilot vessel be provided to obviate their long delays in the boarding area. Because the pilot vessel mooring station at Steveston is some seven miles from the boarding area off Sand Heads, one

pilot vessel can not maintain a shuttle service between the two points to accommodate the pilots individually when they board or disembark. Therefore, all the pilots who are required to serve incoming traffic during a certain period assemble in the pilot vessel at Steveston and remain on board until their assigned vessels arrive. Pilots who disembark from outbound vessels are obliged to wait in the pilot vessel until the pilots for inbound vessels have all taken up their assignments. At times, four or five pilots are kept on board for five or six hours and there have been occasions when the pilot vessel carried more than the permissible six passengers.

The direct cost to the Government for the operation of *Canada Pilot No. 24*, not counting material depreciation, has been:

Year	Maintenance and Operating Costs	Wages and Allowances	Total	Revenues from Pilot Boat Charges	Operational Deficits
1962.....	5,688.73	30,101.48	35,790.21	10,420.00	25,370.21
1963.....	3,999.82	28,631.49	32,631.31	10,930.00	21,701.31
1964.....	5,831.28	32,376.09	38,207.37	11,850.00	26,357.37
1965.....	5,565.99	32,968.33	38,534.32	11,580.00	26,954.32
1966.....	8,814.92	36,727.60	45,542.52	9,550.00	35,992.52
1967.....	10,333.86	40,039.76	50,373.62	9,240.00	41,133.62

SOURCE OF REFERENCE: EX. 197 (1962-67) "Maintenance and operating costs—Pilot Boats" re "Canada Pilot No. 24", and Ex. 152.

These costs together with those of supplying radiotelephone equipment (p. 325) to the pilots commencing in 1966 are the extent of Government subsidies to this District.

COMMENTS

The pilot vessel service is adequate for the existing and foreseeable needs of the New Westminster pilots but it will not suffice if and when the Sand Heads boarding station is made the common changeover point for American and B.C. District pilots as well (vide B.C. Recommendation 2).

Re the adequacy of the service for present needs, it is worth noting that the pilots themselves found one pilot vessel adequate when pilot vessel service was being provided by the Pilotage Authority and its cost was paid out of District revenues. In addition to the initial purchase or building costs, a second pilot vessel would double the service's gross operating expenses which, in 1967, were \$50,373.62 for one vessel.

The reason advanced by the pilots in support of their recommendation does not justify such large capital and recurring expenditures. Furthermore, the extreme situation the pilots described is now less likely to occur because the number of vessels employing New Westminster pilots is decreasing.

(4) DESPATCHING

The District By-law (subsec. 18(4)) requires every pilot before departing for duty to "obtain from the pilotage office information as to the state of the buoys, beacons and channels". This information, which the Secretary and his assistant gather from various sources, e.g., pilots returning from assignments and Notices to Shipping, is posted on a board in the despatching office and also kept in a special register. The pilots are required to sign the register to acknowledge that they have been informed but, if they have been given the information by telephone, the despatcher makes an appropriate entry. This procedure assumes special importance in the New Westminster District because navigational conditions in the river change frequently.

The despatcher maintains an assignment list, or roster, where the names of all the pilots who are not on leave are placed in the order in which they will be called. The procedure is to despatch a pilot to a vessel for the duration of its stay in District waters, and not, as is customary with the tour de rôle procedure, for a single inward or outward trip, or for a movage. When a pilot is assigned to a vessel for its inward trip, he becomes responsible for its subsequent movages and outward trip. The reason given for this local arrangement is that the pilot who has navigated a ship upriver is considered to be more familiar with her than the other pilots. It may well be that the main reason for this procedure is custom, the practice having been established during the days of free enterprise when the pilot who first spoke to a ship on her inward voyage became her pilot for the duration of her stay in the District. At that time, this right was formally recognized in the District By-law (p. 252). When a pilot completes an inward trip, his name is placed at the bottom of the list.

However, before a particular vessel is ready to depart, the pilot assigned to it may have piloted in two or three others for which he would be considered responsible, thus causing occasional conflicts. These are settled by giving priority to the first vessel ready to depart. If two or three are ready at the same time, a pilot would take the first one he had brought in, the next pilot on the roster would take the second, the following one the third and so on, but such assignments do not change their places on the roster. If there is a conflict between an outward departure and a movage, the pilot responsible for the two ships will take the departure and the pilot next on roster will take the movage.

The same procedure is applied to ships that transit the railway bridge with the difference, however, that transits upward and downward must be conducted by the same pilot.

The Harbour Master does not control the movement of ships within the harbour because all berths are either privately owned or operated. His jurisdiction extends to the enforcement of the harbour regulations regarding

speed of vessels and anchorages and to grant exceptions to the rules of the road as laid down in the Harbour Commissioners' By-laws, e.g., permission to take the south draw of the railway bridge on an upriver passage. Most ship movements are controlled by the prevailing physical features of the river principally the tides, available depth of water, currents and the railway bridge. Although in most cases the despatcher could analyze the prevailing conditions, it is the practice to ask the advice of the pilot assigned to a given ship or of the pilot next on the roster.

(5) WORKLOAD

The pilots in the New Westminster District had no complaints about their workload—their only criticism concerned their remuneration which, they felt, was inadequate for the services they render.

Through the roster system, the workload is divided among the pilots on strength and in the course of a year each pilot has approximately the same number of assignments.

An analysis of assignments for 1961, 1962, 1966 and 1967 (Graph, *Appendix D*) shows that maritime traffic in 1961 and 1962 was spread evenly enough over the twelve months—there are occasional peaks and lows but no set pattern. In 1961, all monthly assignments were within 12 per cent of the yearly average, with the exception of March which was 26 per cent above. In 1962, all months except two were within 11 per cent of the yearly average: there was a high of 15 per cent above the annual average in November and a low of 21 per cent below in September. In 1966 and 1967, however, there was greater disparity. In 1966, the first 6 months were all above average with a peak of 19.5% over average in June but the six months of the second half of the year were all below the yearly average with a maximum low in November of 24.4% below average. In 1967, the pattern was somewhat similar with a 26.9% peak above average in January and an 18.1% low below average in July (Ex. 1525(c)).

This new pattern can not be attributed to any specific cause. In his letter dated May 14, 1968 (Ex. 1525(c)) the Secretary of the Pilotage Authority made the following comments:

“You will note the steady decrease from the high in 1964. This undoubtedly is partly due to the increase in the size of the vessels; the trend to the large bulk carriers.

There was a strike of Longshore Foremen of about 3 weeks duration in November and December of 1966. This would account for the sharp drop in November and also for the large increase in January and February, 1967. Other than this the fluctuations seem to be the natural trend of shipping. Worldwide conditions, markets, etc., would most likely be the governing factors.”

The average number of assignments including movages, for the busiest month in 1961, was 20 per establishment pilot compared with the monthly

average of 16; for 1962, 16.4, compared to 14.3; for 1966, 15.1 compared to 12.7; and for 1967, 15.7 compared to 12.9.

During the 17 year period 1950-1967, the peak year was 1960 with 1384 assignments (yearly average per pilot per establishment 197.7) and the lowest year was 1950 with 848 assignments (yearly average per pilot 169.6) (Ex. 1427(q)). The years 1966 and 1967 are the lowest since 1960 with a total of 1,037 assignments each (yearly average 148.1 per pilot for 1966 and 154.8 for 1967). For fluctuation of the aggregate number of assignments on a yearly basis for the period 1958-1967, vide Graph B and accompanying tabulation.

The average number of total assignments on a weekly basis per establishment pilot in the last decade has never exceeded four. In the peak year, 1960, the weekly average was 3.8 assignments and in 1966 and 1967, it was respectively 2.9 and 3.0. Despite the fact that, as seen above, the number of assignments is fairly equally divided throughout the year, such average figures can not be true at any given moment because, if this were so, the pilots' strength could be reduced to 2 or 3 pilots who still would not be overworked. There are day-to-day fluctuations in the demand, and peak periods are followed by periods of low demand. In the District of New Westminster, as elsewhere, it is the expected periods of high demand that determine the number of pilots required on strength. Since pilotage is a service to shipping, pilots should be available in sufficient numbers to meet predictable peak demands during which they should be expected to work longer but not unreasonable hours.

Very little evidence was given about the normal duration of the various assignments, probably because this was not the point at issue and the pilots were not complaining of overwork. The average time on board ship per assignment, i.e., between ordered time and arrival time, is less than four hours per assignment. The New Westminster Pilotage Authority has calculated an average of three hours' piloting time per assignment. All assignments including movages were used to arrive at this average (Ex. 1525(h)). From the information contained on source forms completed by the pilots, the Department of Transport calculated that, in the four years from 1957-58 to 1960-61 inclusive, the pilots had spent on board ships during each of these years a total of 4,199 hours, 3,767 hours, 3,900 hours and 4,613 hours respectively. When these are divided by the aggregate number of assignments including movages (respectively 1,223, 1,083, 1,121 and 1,312) the average time per assignment for each of these years is found to be 3.44, 3.48, 3.47 and 3.51 hours. The break-down between trips and movages is not available but, as can be readily seen, the average time for trips alone would only be a few minutes more. For instance, in 1960-61, if the 182 movages are disregarded and the total number of hours attributed to trips alone, the resulting average would be 4.08 hours (Ex. 155). Here again, such average figures

are not truly representative of the time on duty for any given day or week. There is the occasional assignment which takes much longer when special adverse conditions are met. (The pilots reported that once because of fog a ship took four days to reach New Westminster.) On the other hand, occasionally there are trips that are faster than the average.

Here also, as in any other Pilotage District, the pilots' time on duty comprises more than their time on board piloting, because it must include travelling time, waiting time and stand-by time. Except when on leave, the pilots are always on call and must keep the Secretary informed where they may be reached by telephone. The travelling time of the New Westminster pilots is not comparable with that of the B.C. pilots because the former have to travel between New Westminster and Steveston wharf where they board or disembark from the pilot vessel, or from their residence to the various berths in the New Westminster area. The New Westminster Pilotage Authority has calculated that the average travelling time is three hours per assignment. While the travelling time for movages is considerably less, the travelling time to Sand Heads may be much more, depending on the transportation available. These figures include all time spent travelling, either by land transport or pilot vessel, and waiting time at the pilot vessel wharf at Steveston or aboard the pilot vessel. In other words, it comprises all the time a pilot is away from home on assignment except the time he is aboard ship. Therefore, total time away from home amounts on the average to 6 hours per assignment (Ex. 1525(h)). Furthermore, each pilot may spend some time giving advice on the appropriate time for the departure of vessels at different draughts (pp. 336-337). The Commission does not possess the necessary data to determine with any degree of certainty what these various factors actually represent in terms of time. It is considered that the Pilotage Authority should gather complete statistics on such matters in order to be in a position to appraise the situation if and when the question of workload again becomes an issue. Such statistics would enable the Pilotage Authority to ascertain at all times whether there are enough pilots and to make any necessary changes.

6. PILOTS' REMUNERATION AND TARIFF

(1) PILOTS' REMUNERATION

Preamble

Subsection 10(3) of the District By-law stipulates that the pilots must be paid monthly on the basis of an equal share of the pool. Indirectly it defines the pilots' earnings as the net revenue, i.e., the amount left over at the end of each month "from the amounts paid as pilotage dues", after deducting the expenditures prescribed in subsec. 10(2).

This explains why the pilots feel that expenditures made by, and for, the Pilotage Authority are in reality paid by them, and why they consider the Secretary and his staff (and the crew of the pilot boat when it was a District responsibility) their employees.

(a) *Definition of Individual Pilot's Earnings*

As in other Districts, the definition of an individual pilot's earnings is a matter of semantics and varies with the point of view (vide pp. 132 and ff.).

The full share of a licensed pilot's earnings as shown on Income Tax Form T-4 for the past sixteen years has been:

1952.....	\$ 7,985.00	1960.....	\$14,752.35
1953.....	9,642.00	1961.....	14,690.13
1954.....	10,584.00	1962.....	12,894.67
1955.....	9,506.00	1963.....	14,431.18
1956.....	7,641.00	1964.....	15,134.50
1957.....	10,654.00	1965.....	14,007.82
1958.....	9,364.00	1966.....	11,163.04
1959.....	7,755.00	1967.....	14,310.78

SOURCE OF INFORMATION: Ex. 152(1961-1967).

In 1960 and 1961, all seven pilots on strength received a full share but, in 1962, one pilot retired November 30, and thus received only \$11,893, and, in 1963, there was one probationary pilot effective January 1 who received 75% of a share, i.e., \$10,823.36. In 1964-65-66, there were no probationaries or retirements and all seven pilots received full shares. In 1967, one pilot retired Sept. 16; his share was \$12,240.11.

The sharp rise shown for 1960 was due to a marked increase in the number and tonnage of vessels piloted, plus a marked decrease in District expenditures as a result of the Government assuming all costs of the pilot vessel service, which alone brought an increase of over \$2,600 to each pilot.

The increase in 1967 is due to a miscalculation in the readjustment of the ton price unit when gross tonnage replaced the net ton in the computation of basic dues. In 1966 and 1967, the number of vessels was almost the same and the total assignments were exactly the same.

Earnings in 1958 and 1959 would have been higher but for strikes by longshoremen and woodworkers. During the two months of the strikes in 1959, the pilots' remuneration fell to \$150 a month because vessels were prevented from loading lumber products at Fraser River berths.

In the New Westminster District, as in the other Districts where the pilots have the status of *de facto* employees and are paid through a pool system, what constitutes a pilot's remuneration is always a point of contention and, furthermore, an exact amount is always very difficult to establish (p. 132).

On July 4, 1961, the Department of Transport, in reply to a query from the Vancouver Chamber of Shipping, quoted the net income per effective pilot on the basis of the fiscal year from 1957-58 to 1960-61 as follows:

Year	Number of Effective Pilots	Net Income per Effective Pilot
1957/58.....	5.58	\$12,909.95
1958/59.....	6.64	9,295.06
1959/60.....	7	10,202.25
1960/61.....	7	17,462.89

SOURCE OF INFORMATION: Ex. 155.

The following table indicates the share of District earnings accruing to each pilot for the year 1966. That year was selected as a simple example, because the number of pilots on strength (7) remained constant throughout the year and all were equally effective.

	District Amount	Share per pilot
Total District earnings*.....	\$128,787.98	\$18,398.28
Pilot boat charges and radiotelephone fees.....	10,275.50	
Earnings after deduction of the above.....	118,512.48	16,930.35
District and service operating expenses.....	18,685.16	
Net revenue payable to or on behalf of pilots.....	99,827.32	14,261.05
Pilots' travelling expenses†.....	10,275.12	
Pilots' contribution to superannuation.....	89,552.20 8,305.22	12,793.17
Pilots' group expenses paid from the pool‡:	81,246.98	11,606.71
Canada Pension Plan.....	554.40	
Health Insurance.....	525.00	
Travel Insurance.....	560.00	
Workmen's Compensation.....	955.59	
Convention and Delegations.....	210.65	
Pilot vessel-food for pilots.....	300.00	3,105.64
Net revenues of the pool divided among the pilots.....	\$78,141.34	11,163.05

SOURCE OF INFORMATION: Ex. 149(1966)

*If the indirect subsidies received from the Government in the form of the operational deficit of the pilot vessel service, and furnishing radiotelephone equipment (not counting either capital costs or depreciation) were to be taken into account, more than \$6,000 would have to be added to the pilot's share.

†Each pilot may also derive some revenue from his travelling expenses.

‡There are pilots' group expenses contained in the District operating expense item "Miscellaneous".

(b) Relation between Pilots' Remuneration and Tariff

As in the B.C. District, the pilots' income is derived entirely from pilotage dues as established by the tariff. Hence, they are vitally interested in each individual tariff item. The four amendments to the General By-law deal exclusively with the tariff: moveage charge (1964); cancellation (1965); the radiotelephone charge added in April, 1966, as a result of the Department of Transport assuming the responsibility and the cost of furnishing the pilots with the required portable radiotelephone equipment; basic charge, east of Pitt River charge and detention (December 1966).

In 1961 and 1967 (Appendix E), District and service operating expenses (pilots' travel expenses excluded) accounted for 19.5% and 21.6% respectively of pilotage earnings (excluding pilot vessel and radiotelephone charges). It is for this sole reason that for many years the New Westminster pilots have urged that the direction of their District be taken over by the Minister as Pilotage Authority. As will be seen later (p. 357), when their pilot vessel was reclassified, the pilots considered that the ensuing financial burden was excessive and sought to have the problem solved by demanding that the Minister become their Pilotage Authority. When this failed, they went on strike (p. 357) until they were assured that the pilot vessel service would be taken over by the Department of Transport. This was the first time that direct financial assistance was given to this District since 1904 when the pilot's remuneration was paid by the City of New Westminster (p. 255). Since then, the Department of Transport has also relieved the District of the cost of supplying portable radiotelephone equipment. This is now the reason why the pilots have again urged that the District be taken over by the Minister of Transport, not because they are dissatisfied with their actual Pilotage Authority but merely for the financial advantages they would obtain.

The individual pilot's remuneration is also affected by the number of pilots on strength. The smaller the number, the greater the workload but also the greater the remuneration. However, in the New Westminster District, an increase or decrease of one in the number of pilots is much more significant than in the B.C. District; proportionally, a change of one in the New Westminster District corresponds to about ten in the B.C. District.

(2) TARIFF

At the time of the Commission's hearings in 1963, the basic rates then in force had not been changed since they were established in 1953 (P.C. 1953-641, dated April 23, 1953).

Since the creation of the District the evolution of the tariff has been as follows:

- A. The tariff that applied when the District was created in 1904 was the 1894 Yale and New Westminster District tariff. The only provision regarding pilotage dues was a voyage charge for either inward or outward, based on draught only: "From the lighthouse on Fraser Sand Heads to New Westminster:

	<i>Per foot</i>
For vessels under sail	\$4.00
For vessels in tow of a steamer	2.00
For vessels under steam	1.50"

- B. The only change to the tariff in the 1906 By-law was the addition of net registered tonnage to draught as components for voyage rates which became:

	<i>Per foot</i>	<i>Per NRT</i>
"For vessels under sail	\$2.00	.01
For vessels in tow of a steamer	1.00	.01
For vessels under steam	1.00	.01"

- C. In 1930, the basic voyage rates were not changed but new items were introduced:

- (a) a minimum voyage charge \$25.00
- (b) an additional charge for proceeding east of Pitt River \$.50 per foot draught
and .005 per NRT
- (c) movage charges, up to the
Railway Bridge \$10.00
up to Pitt River \$15.00
above Pitt River \$10.00 additional charge
- (d) a detention charge \$5.00 per day
if the pilot is retained on board
by special request of the Master
and not on account of an accident
for which he is responsible or of
stress of weather.

- D. Between 1930 and 1960, the following changes were made:

- (a) in 1948, in order "to meet the increased cost of maintaining the pilotage service"
- (i) a \$5.00 pilot boat charge was introduced;
- (ii) the movage charges were raised by \$5.00;

- (b) in 1952, a 30% general surcharge was made;
 - (c) in 1953, the voyage rate was made uniform for all types of vessels; in fact, this amounted to a substantial raise of from one dollar to two dollars per foot draught (the tonnage rate remained unchanged).
- E. The 1960 amendment brought the following changes:
- (a) The voyage rates for vessels under sail and vessels in tow of a steamer were deleted.
 - (b) The basic voyage rate was raised to \$2.60 per foot draught and 1.3¢ per NRT; the minimum charge and the additional charge east of Pitt River were also raised.
 - (c) The following items were added: railway bridge transit, dead ship, cancellation and pilot boat charges.
 - (d) In addition to general increases in the movage charge, a different rate was provided for a daylight movage and a night movage.
 - (e) The 30% surcharge was abrogated.
- F. The next main change was on December 22, 1966, when the gross ton replaced the net ton as a component of the voyage charge, together with draught.

The table on p. 349 shows the various components of the tariff and the yield of each in the years 1960-61, 1961, 1966 and 1967. The figures for the year 1966 have been included in order to show the impact of the modification in the basic rate which occurred December 22, 1966, but whose effects were felt only some time later in 1967. The importance of each item is shown as a percentage of the total earnings derived from the tariff. For complete financial statement for the years 1961 and 1967, vide Appendix E.

(3) PILOTAGE DUES

(A) *Pilotage Voyage Charges*

Pilotage voyage charges account for 95% of the District pilotage revenues (excluding pilot vessel and radiotelephone charges) (vide table p. 349).

Under the New Westminster District pilotage structure, there are three types of charges that may enter into the computation of dues for pilotage performed during a voyage: basic rate with its minimum charge, additional charges for certain portions of the voyage and special rate if the ship is navigated as a dead ship. In addition, travelling expenses are occasionally added.

	1960/61*		1961		1966		1967	
	\$	%	\$	%	\$	%	\$	%
(A) VOYAGES.....	135,253.02	95.0	131,991.71	95.5	113,609.13	95.8	135,274.67	95.7
Basic Rates.....	127,657.92	89.6	125,872.86	91.1	110,648.63	93.3	131,958.37	93.4
Tonnage } NRT.....	66,251.12	46.5	65,091.36	47.1	59,545.63	50.2	3,452.64	2.5
} Gross T.....	—		—		—		76,782.63	54.3
Draught.....	61,406.80	43.1	60,781.50	44.0	51,013.00	43.1	51,723.10	36.6
Minimum Charges.....	1,560.00	1.1	1,950.00	1.4	942.50	0.8	617.50	0.4
Additional Charges.....	6,035.10	4.3	4,168.85	3.0	2,018.00	1.7	2,698.80	1.9
Bridge charge.....	5,687.00	4.0	3,720.75	2.7	1,149.50	1.0	1,815.00	1.3
Pitt River.....	—		—		—		—	
Dead ships.....	348.10	0.3	448.10	0.3	868.50	0.7	883.80	0.6
Travel expenses.....	—		—		—		—	
(B) OTHER SERVICES.....	6,183.10	4.3	5,190.90	3.8	2,624.00	2.2	3,272.00	2.3
Movages.....	6,183.10	4.3	5,190.90	3.8	2,624.00	2.2	3,272.00	2.3
Movages to or from East of Pitt River.....	—		—		—		—	
(C) INDEMNITY CHARGES.....	992.20	0.7	968.00	0.7	2,401.85	2.0	2,801.50	2.0
Detention.....	937.75	0.7	895.40	0.6	2,184.05	1.8	2,728.90	1.9
Cancellation.....	54.45	0.0	72.60	0.1	217.80	0.2	72.60	0.1
(D) SURCHARGE.....	n/a†		n/a		n/a		n/a	
TOTAL DUES BELONGING TO PILOTS.....	142,428.32	100	138,150.61	100	118,634.98†	100	141,348.17	100
Accessory Services.....	11,610.00		11,320.00		10,068.00†		10,962.00	
Pilot boat.....	11,610.00		11,320.00		9,550.00		9,240.00	
Radiotelephone.....	—		—		518.00		1,722.00	
GRAND TOTAL.....	154,038.32		149,470.61		128,702.98†		152,310.17	

*Details not available for the calendar year.

†With an \$85.00 miscellaneous revenue, this total agrees with the total in the table on p. 345, despite the fact that there is a difference of \$207.50 in the accessory services revenue which is compensated by a similar difference in the earnings from other pilotage dues. The sources of the table on p. 345 are the District's official financial statements (Exs. 152 and 149) which do not provide the foregoing breakdown. The source of this table is the calculations made by the Secretary Treasurer of the Pilotage Authority (Ex. 161). For the purpose of this table the relatively slight discrepancy was disregarded.

n/a—not applicable.

(a) *Basic rate*

The basic rate is made up of two components: draught and tonnage. Mileage is not used and need not be (vide Part I, p. 159).

Since draught over a certain depth adds to the difficulty of navigation on the Fraser River, it could be indicated as a component in fixing the dues, provided it bore a direct relation to the added difficulty resulting from maximum or near maximum draught. However, this is not the method adopted. As in British Columbia, a charge for draught is made merely as a means to share the cost of pilotage among the using vessels. In both the District of New Westminster and the District of British Columbia, draught is a holdover from the pre-1906 era when pilotage dues were based solely on this component. It is considered that to apply draught in this way is unreasonable and should be discontinued. (Vide Part I, pp. 161 and ff.).

In areas where greater draught causes obvious navigation problems, consideration could be given to adding a surcharge proportionate to the difficulties. However, it should first be established whether such problems occur only occasionally (in which case an appropriate surcharge is indicated), or are a common event (in which case there should be no surcharge). In other words, no such additional charge should be made if it is found that most ships during either their inward or outward voyage are close to the maximum permissible draught.

It should be borne in mind that since the limiting depth of the channel bars larger ships from the District, most of those entering will make use of all the available depth of water either during the inward or outward part of their voyage. From the information at the Commission's disposal, this is the present situation and it will probably be even more the case in the future. Therefore, it is considered the draught factor should not be used.

Since a ship's tonnage is the most equitable basis for sharing the cost of pilotage among the users, it should be the main component in assessing pilotage charges. At the time of the Commission's hearings, the pilots complained that net tonnage, which was then used, was no longer adequate because many modern vessels, e.g., those with open shelter decks, have a "hypocritical net tonnage". They considered that, instead, not only gross tonnage but maximum gross tonnage should be used (Pilots' brief, sec. 40). The Commission has come to the same conclusion in its study of the question (vide Part I, C.6, pp. 165 and ff.).

The pilots admitted that if the basis of the tariff was changed from net tonnage to gross tonnage, a lower rate would have to be established because the replacement of the net ton by the gross ton without any rate readjustment would result in an increase of revenue of about \$4,000 a year per pilot. They stated that an increase of this magnitude was not contemplated by them.

Since the Commission's hearings, the situation has been partly corrected, the gross ton has replaced the net ton effective December 22, 1966 (P.C. 1966-2409) and, at the same time, the ton rate has been lowered to one cent per gross ton.

Before arriving at the rate of one cent per gross ton, the Pilotage Authority had extensive calculations made to find out the correct rate so that the charge would result neither in a loss nor in a substantial gain in revenue for the pilots. Exhibit 1525(j) is a table prepared by the Pilotage Authority's Secretary showing the aggregate revenue the proposed rate would have yielded in preceding years, and the expected revenue it would yield in 1967.

Despite the decrease to one cent per gross ton, the change has accounted for most of the 28.2 per cent (\$3,147.74) increase in the pilots' earnings in 1967 over 1966, since, for those two years, the number of total assignments was exactly the same and the number of vessels was approximately the same. This is further established by the fact that, prior to the change, the earnings yielded by computing charges on tonnage before the change were only slightly more than those yielded by using draught. In 1967, following the change, this pattern also changed as earnings from the tonnage factor were markedly greater than from draught (vide table p. 349).

(b) *Minimum charge*

Since 1930, when the first minimum charge was introduced in the tariff at \$25, the amount has been changed only once, i.e., in 1960, when it was raised to the present rate of \$32.50. Most of the revenue accruing from this source is now paid by the two small vessels that dispense with pilots: M.V. *Indian* and M.V. *F. E. Lovejoy* (p. 316).

It is considered that such a minimum charge is necessary when the rate is based on a small unit so that the pilots' time is not wasted on vessels that have no real need for their services. If they are employed, a fair price should be paid.

However, the minimum charge should not apply to any vessel affected by compulsory pilotage in any form because, in that event, the minimum charge would amount to discrimination against smaller vessels.

(c) *Additional charges*

Most pilotage trips end below the Westminster railway bridge but some vessels proceed beyond, generally to Fraser Mills and the Gypsum Plant. For such vessels, the tariff provides specific charges additional to the basic voyage charge. For tariff purposes the navigable area east of the bridge is divided in two zones, the mouth of the Pitt River being the dividing point. Transiting the railway bridge calls for a flat \$30.25 charge and a further charge is added if a vessel is piloted further east past the mouth of the Pitt River.

The table on page 349 shows the relatively small number of times the bridge charge has been applied since 1960. Ocean-going vessels no longer proceed east of Pitt River and in the last decade at least there has been no occasion when a charge was made for a vessel entering or leaving the District east of Pitt River.

At first sight, it would appear that the rate for a bridge transit is too low in that it bears little relation to the value of the pilotage service rendered. The reason why the amount charged is so small appears to be its recent origin. Up to 1960, transiting the bridge was part of a normal pilotage voyage which did not call for any extra remuneration. When the tariff was reconstructed in 1930 and most of the new items were introduced, no mention was made of such a charge probably because the bridge was not a difficult obstruction for the type and size of vessels then entering the District and also because ocean-going ships proceeded to Fraser Mills more frequently. However, the situation had changed by 1960, ships were larger and bridge transits less frequent, but they required great skill and local knowledge on the part of the pilots, for which a special charge was arranged. This would also explain the relatively small charge which is difficult to understand when considered by itself. It is not of sufficient incentive for the pilots to undertake this more difficult task or improve their qualifications in order to navigate large, new types of ships through the railway bridge except under the most favourable conditions. In view of the direct connection between the tariff and their remuneration, this lack of incentive may explain the negative and passive attitude of the pilots regarding the extra task when maritime traffic to New Westminster showed few signs of decreasing.

As for the charge for vessels east of Pitt River, the current rate has been in effect since 1960, i.e., 65¢ per foot draught plus 0.65¢ per net registered ton. In 1960, when the change was made from net to gross tonnage as the basis for computing dues, the net ton was deliberately retained in this instance as is shown by the specific amendment to subsec. 1(c) of the *Schedule* to the By-law. There seems to be no valid reason for such an exception; it is considered that gross tonnage with an appropriate price unit should be used here as well. It is also considered that draught should be discontinued as a factor for the same reason as explained in the recommendation on basic rates.

There is no authority in the tariff to charge a pilot's travelling expenses at any time. Therefore, when such a charge is made, it is illegal. It was explained that a pilot's transportation from his residence to any wharf within the District or to the pilot vessel mooring station at Steveston is not, as a rule, a charge against a ship. The pretext for making the charge is late notice of requirement which makes it impossible for a pilot to use normal means of land transportation and forces him to use a taxi whose cost is charged to the ship and repaid to the pilot when collected. It is considered that such

a charge can not be legally enforced unless the expense is incurred with the consent of the Master or agent. In fact, it amounts to a penalty imposed upon a vessel for a late notice of requirement because, as will be seen later, the pilots are paid the same travelling expenses for all assignments, in all cases as if they had travelled by taxi. The amounts so collected are not significant (vide table, p. 349). It is felt that this practice should be discontinued. (Re legality of E.T.A., vide Part I, pp. 208 and ff., 230 and ff. and General Recommendation 22, pp. 538-9).

As in most Pilotage Districts, the rate for piloting a dead ship is one and a half times the normal rate. (For comments, vide page 151). This occurs very rarely in the New Westminster District and there has not been such a charge in the last decade at least.

(B) *Other Services*

The only other services performed by the New Westminster pilots are movages.

At the time of the Commission's sittings, the tariff made a distinction between day and night movages and provided a different flat charge for each, irrespective of the size of the vessel. A bridge charge in the same amount as a day movage was added whenever the movage entailed transiting the bridge.

Since then, a variable charge in the form of a scale based on tonnage was adopted in 1964, but the flat rate charge was retained for bridge transits. The comments made earlier on this subject apply here.

(C) *Indemnity Charges*

In 1930, a detention charge was introduced into the District tariff for the first time, i.e., a daily rate of \$5 when a pilot remained on board by special request of the Master, provided the cause was not an accident for which he was subsequently found responsible or stress of weather. The first change came in 1960 when the requirement for the pilot to remain on board at the special request of the Master was deleted, and the detention charge was increased substantially to \$6.05 per hour with a daily maximum of \$36.30. This was the situation in 1963. The pilots complained that the detention provision did not cover the times they were detained in the pilot vessel awaiting late arrivals or detained on board ship due to stress of weather. The longest recorded delay on board the pilot vessel had been 48 hours, and on one occasion a ship took five days from Sand Heads to New Westminster because of adverse weather. These must have been very exceptional cases since the average duty time including travelling time, waiting time at Steveston, in the pilot vessel and on board the ship being piloted averaged six hours per assignment, i.e., three hours piloting and three hours travelling and waiting (p. 342).

Since the Commission's hearings in 1963, the detention provisions of the tariff have been amended twice. In 1965, they were changed in two respects to meet the pilots' requests, namely, a detention charge became payable if waiting time exceeded one hour:

- (a) when a pilot was detained on board a vessel for any reason including stress of weather and the pilot's own fault;
- (b) for detention at Steveston or on board the pilot vessel when a vessel's scheduled arrival was delayed.

In 1966, the charge was increased and altered to a scale of the same amounts and application as had recently been adopted in the British Columbia District (p. 159).

It is considered that the detention provisions are unrealistic and abusive. There should never be a detention charge during a pilotage trip for time spent at anchor or at a berth on account of adverse weather conditions or any other cause beyond a vessel's control. Furthermore, time waiting at the boarding station is a normal hazard of the service (vide Comments, p. 160).

The cancellation charge was first introduced as recently as 1960 and the amount—\$18.15—has not been altered since. The pilots complained that cancellation for stress of weather is neither charged for nor taken into consideration when computing their workload. During foggy weather, a pilot frequently reports on board when the tide is suitable but the ship is unable to proceed because of the fog. He must then return home and advise the Master when conditions appear suitable to proceed. With regard to Sand Heads, when he is informed that an expected vessel will not arrive, he is advised to return home and receives no payment for his time and effort because, the pilots claim, the phrase "report for duty" in the By-law is interpreted by the Authority to mean actually boarding a ship.

In 1965, the governing provision was further amended to qualify "stress of weather" by adding "unexpected".

It is considered that the same rule should apply in this case as for detention. Under no circumstances should this penalty clause be imposed when the blame for cancellation can not be imputed to the Master or agent. Furthermore, it should not be imposed unless the order has already been acted upon, i.e., the pilot has proceeded and was available for duty at the required place and time. (For further comments vide p. 164).

(D) *Surcharge*

No surcharge has been imposed since 1960 when the 1952 surcharge of 30% was abolished.

(E) *Accessory Services*

These are pilot vessel services (pp. 338-339) and the provision of radio-telephone equipment (p. 361) (vide Comments, p. 164).

(4) COMPLAINTS ABOUT TARIFF AND PILOTS' REMUNERATION, AND THE PILOTS' STRIKE IN 1959

(a) *Shipowners' Complaints*

The shipowners complained that the Fraser River ports were discriminated against in that their pilotage costs were excessive and higher than those in Vancouver by 60 to 70 per cent and that it was almost twice as expensive for a trip from Vancouver to New Westminster compared to a trip from Vancouver to Nanaimo. They maintained that these heavy pilotage costs were a burden which would react against the development of trade and commerce within the port of New Westminster. They added that the inducement to trade in any area is affected by the total cost of trading in that area.

COMMENT

The shipowners' complaints are mostly justified but the fault lies not in the New Westminster tariff, but in the B.C. Pilotage District tariff which provides for a pilotage charge for a vessel changing pilots at Sand Heads boarding station on the same basis as entering or leaving a port (which is not the case, see p. 148) and thus discriminates against New Westminster. This would be corrected if Recommendation 5 for the B.C. District is implemented.

A pilotage voyage from Brotchie Ledge boarding station to Vancouver costs about the same as a pilotage voyage from Sand Heads boarding station to New Westminster. For the vessel *Pacific Northwest*, with a gross tonnage of 9,442, net 5,529, draught 20 feet (Ex. 188) her pilotage charge from Brotchie Ledge to Vancouver, including pilot boat charge, was \$142.81 in 1963 (\$176.27 in 1967) while the charge from Sand Heads to New Westminster was \$133.88 in 1963 (\$146.42 in 1967). However, the B.C. pilotage charge from Vancouver to Sand Heads would have been \$150.82 in 1963, to which must be added the New Westminster pilotage charge from Sand Heads to New Westminster of \$133.88, making the total pilotage charges from Vancouver to New Westminster \$284.70. (for other voyage charges and their computation, see Appendix F). This large difference in charges arises because the New Westminster Pilotage District is separated from open water by other pilotage waters, i.e., vessels arriving from seaward must first transit either B.C. District waters or, if using Rosario Strait, American pilotage waters, where, in each case, their pilotage charge is additional to the New Westminster charge. Another example is the trip by the same vessel *Pacific Northwest* from Brotchie Ledge to New Westminster via Haro Strait. Under the 1963 tariff, the B.C. pilotage charge was \$125.59 and the New Westminster charge \$133.88, i.e., a total of \$259.47, almost double the B.C. pilotage charge from Brotchie Ledge to Vancouver.

This problem is common to all Districts that do not have direct access to the open sea except through other District waters. In such Districts, vessels benefit from the services of different District pilots who should be remunerated separately. Under the present legislation, the tariff should be fixed in such a way that the total cost of operating the District is borne by the vessels using the services of its pilots. If the Commission's General Recommendation 21 (Part I, p. 524) is implemented, corrective action could be taken by the Central Authority if, in its judgment, the aggregate pilotage charges to reach the port of New Westminster are too high and have an adverse effect on both the port and public interest. Corrective measures would then take the form of subsidies from the proposed Equalization Trust Fund.

(b) Pilots' Complaints

The pilots complained that their remuneration was not high enough. They stated that from 1939 to 1962 inclusive the increase in their remuneration was less than 100 per cent since it rose from \$525 per month to \$1,000 per month. They, like the B.C. pilots, compared their remuneration with a group of salaried mariners, namely, tugboat Masters, Class 1, whose remuneration had increased during the same period from \$295 to \$591 per month, with the added benefit of an additional \$45 for fixed overtime, making an effective increase up to 200 per cent, plus room and board and, in some instances, with uniforms and clothing also supplied. Furthermore, the operating costs of the tugboat companies had also increased due to the requirement to employ two complete crews, and to pay 50 per cent of the premiums for health, sickness, accident and life insurance. The pilots noted that to obtain the same benefits they have to pay the full premiums themselves out of their earnings, i.e., out of the District revenue (Pilots' brief, secs. 41 to 45 incl.). They also remarked that they were at the mercy of changing economic conditions, labour troubles and the volume of traffic requiring their services.

The pilots stated:

- (i) They would be willing to become Crown employees and receive an annual salary, provided the salary was adequate and accompanied by suitable working conditions.
- (ii) In order to maintain their status as professional mariners and specialists, their earnings should be at least equal to the remuneration of the highest paid Masters who use their services (Pilots' brief, sec. 46). They had been informed that some Masters of non-Canadian ships are paid \$1,500 per month.

The pilots agreed that shipowners bear heavy burdens of expense for various services: longshoremen, linesmen, tugs, and many others. However, they stated that "pilotage dues are the most negligible cost for the finest of

all duties performed” and that the charges for their professional services are considerably lower than those for semi-professional and unskilled labour (Pilots’ brief, sec. 39).

As an alternative means of correcting the alleged imbalance of their remuneration, they suggested:

- (i) an adequate increase in the tariff;
- (ii) that the Minister of Transport become the Pilotage Authority so that all pilotage earnings would be reserved for the pilots and that District expenses be paid out of public funds as in other Districts where the Minister is the Pilotage Authority.

COMMENTS

The pilots’ complaints actually emanate from their status as private contractors which they enjoyed prior to 1930. The drawbacks of their ambiguous status as *de facto* employees can not be effectively cured unless they assume the complete status of Crown employees.

The suggestion that, in order to maintain their status as professional mariners and specialists, their earnings should be at least equal to the remuneration of the highest paid Masters who use their services is based on false premises because the two occupations are not comparable. It is true that a pilot is a qualified mariner and an expert in local navigation in his District who should be able to handle the largest ship that enters it, but there the comparison ends. The navigation of a ship is only one of the numerous responsibilities of a Master (for the recommended criteria for fixing the pilots’ salary or target income, reference is made to Part I, pp. 144-147).

For many years, the New Westminster pilots have urged that the Minister of Transport become their Pilotage Authority, their main reason being the financial advantages they would personally derive. Up to 1949, the policy of the Government was not to grant any direct or indirect financial assistance to any Pilotage Districts except those for which the Minister was the Pilotage Authority. The conflict that led to the pilots’ strike in 1959 resulted in a partial relaxation of this policy and the pilots are still making the same request in order to receive the same treatment and financial assistance that are given, *inter alia*, to their colleagues in the B.C. District.

(c) 1959 Pilots’ Strike

On May 4 and May 28, 1956 (Ex. 1169) the pilots wrote to their Pilotage Authority pointing out that the cost of maintaining and operating the pilotage vessel service should no longer be a responsibility of the District “in view of the fact that in all other ports on the West Coast of Canada this maintenance is carried by the Department of Transport”. Since such assistance could not be given a District administered by a local Board, they

requested that the function of Pilotage Authority be vested in the Minister of Transport. The New Westminster Pilotage Authority studied their request, made inquiries about the pilots' remuneration and workload in the other Districts and came to the conclusion that, in the interest of the port of New Westminster and of the pilots themselves, the District should remain under the control of a local Authority. At a joint meeting held on October 10, 1956, they informed the pilots of their decision.

The debate was revived shortly thereafter when the Department of Transport decided that the pilot vessel would be subject to Steamship Inspection Regulations, thus entailing a substantial increase in the cost of maintaining and operating the pilot vessel with a consequent decrease in the pilots' net earnings. On December 14, 1956, the Chairman of the Pilots' Committee wrote directly to the Department of Transport formally requesting that the Minister of Transport take over the District, despite the attitude taken by their Pilotage Authority. He frankly admitted that the reason for his request was finance, i.e., the already high cost of operating the pilot vessel which would be further increased as the result of the D.O.T. ruling to bring it under the Steamship Inspection Regulations.

In order to assist in easing the pilots' financial difficulties, the members of the Pilotage Authority discontinued, effective January 1, 1957, the monthly allowance (totalling \$1,300 in 1956-57) they had granted themselves out of pilotage revenues through "the courtesy" of the pilots to cover their expenses in connection with their Pilotage Authority duties.

On September 18, 1957, the pilots made a new request to the Pilotage Authority regarding pilotage rates, working conditions, monthly leave and transportation. The Pilotage Authority studied these requests and gathered data covering a number of months of the hours worked by each pilot, his travelling time and assignments. On May 15, 1958, it presented a brief to the Department of Transport which showed the financial problem with which it was faced for the years 1958 and 1959 as compared with 1957 giving figures with regard to revenue and expenses and pilots' remuneration and leave. It concluded that, to remedy the situation, first, the Department of Transport should take over the pilot vessel service and, second, the pilotage rates should be increased considerably (Ex. 1427(y)).

On account of the increased cost of operating the pilot vessel, the District expenses in 1957 rose to more than 50 per cent of the gross earnings and it was feared that the pilots would be placed in a deplorable position if there were any decrease in traffic. In fact, there was a decrease in the summer of 1958 on account of the longshoremen's strike and in 1959 because of the woodworkers' strike.

In this predicament the New Westminster pilots received the support of the B.C. pilots and the Canadian Merchant Service Guild.

The Government first decided to alter its financial policy with regard to Districts where the Minister was not the Pilotage Authority and on November 19, 1958, the pilots were informed by the Director of Marine Regulations that the Department of Transport was in the process of arranging to take over the pilot vessel service as of April 1, 1959, but that no decision had been taken whether the Minister would become Pilotage Authority (Ex. 1427(z)(1)). But in a further letter dated February 25, 1959, the Director of Marine Regulations stated that his Department proposed to request the Governor in Council to appoint the Minister of Transport as Pilotage Authority, effective April 1, 1959, and went on to enumerate the procedure that would be necessary to effect the proposed changeover (Ex. 1427(z)(2)).

However, on April 1 and in the months that followed no action was taken on either count. It appears that the Department of Transport had reviewed their policy and decided against the Minister becoming the Pilotage Authority, but that the Department would take over the pilot vessel service as soon as possible and extend this policy to other Commission Districts as well. Since this step would establish a precedent, the Department anticipated difficulty in obtaining the necessary approval.

However, events were precipitated when the B.C. woodworkers went on strike July 7, 1959. The Pilotage Authority wrote again to the Department of Transport urging the Department to assume the operation of the pilot vessel service without delay. Local public officials gave their support to the pilots with the result that the proposal received special consideration and was quickly approved. On August 27, 1959, by P.C. 1959-19/1093 (Ex. 52), the Department of Transport was authorized, effective April 1, 1959, to take over the pilot vessel and the pilot station.

Thereafter, the procedure was initiated for the changeover of the pilot vessel service and the Director of Marine Regulations met with the Pilotage Authority members to arrange the terms and conditions. In a letter dated October 23, 1959 (Ex. 1169), the Pilotage Authority was informed that the Department was to take over the ownership of the pilot vessel and the real property of Steveston "upon the terms discussed in detail with Mr. Alan Cumyn, Director, Marine Regulations, on his recent visit". The letter added "our Law Branch requires a statement signed by each of the pilots waiving any claims they have or may have against these assets". He concluded by saying that it had been decided that, for the time being, the Minister of Transport would not become the Pilotage Authority. This, however, was not to be construed as a refusal, any more than taking over the pilot vessel should be considered a preliminary to replacing the local Commission by the Minister as Pilotage Authority.

At the beginning of November no further progress had been made. On November 12, 1959, the Secretary recorded in the minutes of the meeting

of the Pilotage Authority that, due to lack of shipping and heavy expenses connected with pilot vessel operations, the pilots had received only \$130 each for the month of October and had averaged only \$340 for the preceding three months, and that they were becoming increasingly disturbed at the long delays by the Department of Transport. The Authority wired Ottawa informing them of the situation and urging that immediate action be taken.

However, the pilot vessel was only one of a number of issues all relating to finance and pilots' remuneration. *Inter alia*, the question of pilotage rates was being debated between the pilots, the Pilotage Authority and the Vancouver Chamber of Shipping. In paragraph 46 of their brief, the pilots referred to the drastic action they had to take in order to obtain an increase in dues. Their financial situation was desperate, they had been negotiating with the Department of Transport since 1956 about taking over the pilot vessel, the longshoremen's strike and the woodworkers' strike had also adversely affected their income. Despite renewed assurances from the Department of Transport, no action was taken.

Because of these factors the morale of the pilots sank to a low ebb and they decided to take strike action in the form of a general meeting on November 23, 1959. This meeting, which lasted 48 hours, took place in the premises of the Canadian Merchant Service Guild in Vancouver and was attended by all seven pilots. The Secretary of the Pilotage Authority was informed of their whereabouts but when they were assigned to ships by telephone or by telegram they refused to go. Two or three ships were waiting to depart and one ship was due to arrive that evening but in reply to individual assignments the pilots sent word that their meeting was not completed.

On November 24, the Pilotage Authority met with the pilots in an effort to resolve the problems. The Chairman of the Pilotage Authority informed the pilots that he had received a telephone call from the Director of Marine Regulations, later confirmed by telegram, advising that the Department of Transport was prepared to take over the pilot vessel as of that date provided a boarding and disembarking fee of \$10 was charged all vessels immediately. The Government would also assume the Authority's bank loan as of that date. They also discussed the rates and an agreement was reached whereby the pilots' request for parity with Vancouver for movages and other small items would be granted. A further meeting was scheduled for the next day.

At the meeting on November 25, the pilots notified the Pilotage Authority that if they were given assurance that the Pilotage Authority would recommend these agreements and endeavour to have implemented, they would return to work immediately. A telegram outlining the pilots' requests and recommending that they be made effective immediately was despatched to the Director of Marine Regulations by the Pilotage Authority, namely:

- (i) that the basic pilotage rate structure remain unchanged;

- (ii) that the operation of the pilot vessel, together with its assets and liabilities, be assumed by the Department of Transport;
- (iii) that the charges for movages, bridge passage, detention and cancellation, be brought to parity with Vancouver Harbour charges.

The pilots also felt that, in view of the promises made to them by D.O.T. officials, they should be reimbursed for the cost of operating the pilot vessel from April 1, 1959. This request was not granted but the others were eventually agreed to and the Department of Transport assumed responsibility for the pilot vessel service effective November 25, 1959.

7. FINANCIAL ADMINISTRATION

(1) NEW WESTMINSTER PILOTAGE FUND

Until 1959, the New Westminster Pilotage District operated on the principle that the District must be financially self-supporting. That year, the Federal Government departed from that principle for the first time, when it assumed responsibility for the pilot vessel service at public expense (p. 322) and again in 1966, when the Department of Transport undertook to supply portable radiotelephone sets for the pilots.

However, all other expenses are met out of pilotage revenues and each pilot's remuneration consists of an equal share of the subsequent net earnings (generally referred to as the pool) which are distributed monthly.

Only one Fund is maintained and administered by the District Pilotage Authority, i.e., the Pilotage Fund, which is the bank deposit account of all monies received by the Pilotage Authority. Contrary to the practice in the B.C. District, the District financial statement covers all Pilotage Fund receipts and expenditures, whatever their nature and purpose.

There is no Reserve Fund because the sharing of the pilots' net earnings is based on money actually received and not, as in B.C., on the basis of dues earned, whether collected or not (pp. 185 and ff.). Because of the small number of pilots, a Reserve Fund is not as important as it is for B.C.. However, problems do arise and cause unnecessary contention whenever a pilot retires, or a new pilot is appointed, or a pilot is absent without pay thus affecting his right to participate in the pool. To avoid these situations the B.C. procedure should be followed in the New Westminster District.

The Pension Fund was abolished in 1958 when it was paid out to an insurance company in return for guaranteed pension benefits (p. 369).

The Secretary is responsible for the financial administration of the District, i.e., custody of the Pilotage Fund, billing and collecting of dues, bookkeeping, payments for expenses, earnings and the minutes of the Commissioners' meetings.

As in all other Pilotage Districts, dues are calculated and invoiced in accordance with the information contained on source forms which give the particulars of the ship concerned and of the services rendered. The pilot completes and signs the form which is then countersigned by the Master. The Pilotage Authority uses a special form designed to provide complete information for all services performed from which the Secretary computes the dues and keeps statistics.

The Secretary testified that he had no difficulty collecting dues and that they are normally paid within 30 days. The Authority has never been obliged to take court action to collect dues and its only bad debt was incurred in March, 1959, by the now bankrupt Alaska Freight Lines of Seattle. However, the pilots have on occasion protested to the Pilotage Authority about delays in payments which, in some instances, have extended to 90 days. For example, on November 5, 1963, the pilots registered a protest against the accounts receivable on October 31, 1963: three were outstanding for August and seven for September. The Secretary was then instructed by the Authority to take appropriate action to collect any account outstanding for 60 days.

The Secretary's books are audited yearly by an independent firm of auditors and the audited statement is sent to the Department of Transport. In addition, the annual report on the standard Department of Transport form is also furnished as required by sec. 332 C.S.A. (Exs. 149 and 152). The auditors make spot checks every two or three months during the year to confirm that pilotage dues are assessed correctly.

In 1961, for accounting purposes, the auditors changed from the fiscal year to the calendar year.

Appendix E is a comparative table for the years 1961 and 1967 rearranged in the order of the following analysis.

As in B.C., the financial statement does not contain the items "accounts receivable" and "accounts payable", because it is designed to show only actual receipts and expenditures. Accounts payable for auxiliary services, i.e., the pilot vessel and portable radiotelephones which are provided by the Department of Transport, are treated separately. In this regard the Department is considered a third party to whom the Pilotage Authority is immediately indebted. Hence, the charges for these services as rendered are paid each month to the Department whether or not they have been collected. The pilots have occasionally protested against this procedure, but it is strictly in accordance with the legal situation since the auxiliary services charges are owed to the Government by the pilots and not by the ships (Part I, p. 109).

A former practice was to maintain a credit balance or reserve to meet future liabilities which, however, was divided into equal shares whenever a pilot retired or a new pilot was appointed. In April, 1955, it amounted to \$2,300.00 but was discontinued on March 31, 1957, at the pilots' request. Unpaid pilotage dues are not reflected in the statements, but, nevertheless, bills are paid when received, except when the Pilotage Authority decides to

pay large amounts by instalments. The last time this occurred was in 1958 for refitting the pilot vessel (p. 322). However, this is not permissible, either under the statute or the By-law (Part I, p. 106).

(A) *Assets and Items of Revenue*

The Pilotage Authority still owns certain assets necessary to carry out its function. Since the Department of Transport took over the pilot vessel service, its only material assets have been office equipment which does not appear on the financial statement but the aggregate value is mentioned each year by the chartered accountants in the preamble to their audited report. For instance, for the year 1957/58, when the Authority owned the pilot vessel and the Steveston property, their aggregate value was entered as \$45,621.61 (with the bank loan \$24,013.39 as capital liability). The 1967 statement indicates that the Authority's assets consist solely of "furniture, fixtures and equipment with a cost value of \$1,843.49 (Ex. 152).

The Pilotage Fund comprises the following items:

- (a) *Pilotage dues*, i.e., all items listed and defined in the tariff which were studied earlier pp. 348-354. They comprise dues for the pilots' services, indemnity charges and also the cost of auxiliary services furnished by D.O.T., i.e., pilot vessel service and portable radiotelephones. These items account for practically all District earnings. In 1961 and 1967, analysed in Appendix E, there were no other sources of revenue.
- (b) *Miscellaneous revenue*, i.e., indemnities for overcarriage and quarantine, examination and licence fees and fines. Indemnities are also paid under Workmen's Compensation legislation and under the pilots' accident insurance policy. However, for many years, there have been no entries under any of these headings except licence fees. In view of the location of the boarding station, the overcarriage of a pilot is a most unlikely occurrence. As seen earlier, as far as can be ascertained no disciplinary action has ever been taken against a New Westminster pilot. Because of the small number of pilots, a vacancy seldom occurs and, therefore, revenue from examination and licence fees is minimal. Furthermore, it would appear that the By-law provision (subsec. 14(2)) calling for an examination fee of five dollars payable by each applicant is not implemented. As seen earlier (p. 326), when the latest examination was held at the end of 1962, the advertisement attracted 37 applicants of whom 12 met the requirements, but there is no entry either in the 1962 or the 1963 financial statement regarding any receipts from that source. The 1963 and 1964 statements, however, show for each year under "miscellaneous" receipts of \$10 which

were obviously the fees for the probationary licence of Pilot Patterson (By-law subsec. 15(1)) issued January 1, 1963, and for his permanent licence (By-law subsec. 15(3)) issued to him the following year. The examination fee is illegal and licences in a system of controlled pilotage should be free of charge (Part 1, p. 260). The last receipts under Workmen's Compensation and pilot's group insurance were in 1954 (Ex. 1427 (o)).

(B) *Liabilities and Items of Expenditure*

The Pilotage Authority has very few occasions, if any, to receive money belonging to a third party, except pilotage dues for the accessory services provided by the Department of Transport. Therefore, expenditures may be divided into:

- (a) District and service operating expenses;
- (b) Monies paid to or on behalf of the pilots.

(a) *District and Service Operating Expenses*

(i) *Auxiliary services*

District expenditures for auxiliary services are limited to the pilotage dues collected for pilot boat and radiotelephone charges. For the year 1967, the cost of these auxiliary services to the Pilotage Authority was \$1,093.75. For details of the gross and net cost of pilot vessel service and the yearly deficit assumed by the Government, vide table, page 339.

These auxiliary service expenditures from pilotage dues amounted in 1961 and 1967 respectively to 7.5 per cent and 7.2 per cent of the total District gross earnings.

(ii) *District general expenses*

These comprise expenses for staff, office and pilots' travelling. In 1961, they accounted for 16.2 per cent and in 1967, 19.8 per cent of the total. If the District came under the Minister as Pilotage Authority, office expenses and staff salaries would be assumed by the Government; in 1961 and 1967, these amounted to 10.5 per cent and 12.9 per cent respectively.

Office staff expenses comprise the remuneration of office personnel and fringe benefits, i.e., salaries as well as premiums for Employment Insurance, Workmen's Compensation, health insurance and pension plan. Health benefits are in the form of insurance carried by the C.U. & C. Health Services Society. The premiums of the Secretary and his assistant are paid partly by them and partly by the Pilotage Authority. The Secretary carries a Mutual Life Insurance Company of Canada policy providing him with \$10,000 life insurance coverage plus a pension of \$100 a month at the age of 65

to be paid upon retirement. It is based on a contribution of \$25.80 per month by the Secretary and a similar amount by the Pilotage Authority. If he retires earlier, his contributions will be returned to him.

Normal office expenses are for rent, light, laundry, janitor, telephone and telegraph, postage, printing, stationery and office supplies but, in addition, there are other operating expenses such as advertising, legal and audit costs, bank charges, and a number of other small items lumped together under the heading "miscellaneous expenses". Under "miscellaneous" are entered, *inter alia*, some pilots' group expenses which properly belong to the other category. One of these is the item "bonuses and presents" (p. 367). They can not be segregated because no details are available.

Pilots' travelling expenses account for one of the largest single items of expenditure (aside from pilots' remuneration) in the District, 5.7 per cent in 1961 and 6.9 per cent in 1967. Because pilotage is controlled and the pilots have the status of *de facto* employees, this item is included in District expenses in order that the pilots' remuneration reaches a net amount in the same way as a salary.

According to subsec. 10(2)(c) of the By-law, each pilot is to be reimbursed for expenses he has actually incurred in the course of his duties and is supposed to furnish an itemized statement of his expenses in order to comply with this provision. However, the letter of the law is not observed. For a long time the expense allowance system has existed instead. Prior to November 9, 1957, the pilots received a monthly expense allowance of \$25. At the Pilotage Authority's meeting held on that date this allowance was cancelled at the pilots' request and pilots were authorized to use taxis for transportation in the situations described in the minutes and the fare was charged directly to the Authority. This was later changed to an expense allowance per trip or movage which at the Authority's meeting of June 25, 1962 (Ex. 1427(s)) was raised to \$9 per trip and \$6 per movage, without the pilots being required to prove that these sums had actually been expended.

At the Commission's hearing in 1963 the Secretary of the Pilotage Authority stated that in his opinion these allowances were a fair average since most of the pilots' work is at night and they must travel by taxi. A pilot then receives the same amount whether or not he is obliged to travel at short notice as a result of a vessel not complying with the E.T.A. requirement although when this occurs the ship concerned is debited with a special charge (pp. 352 and 353).

In September, 1966, the allowances were increased to \$10.50 per trip and \$7.00 per movage. In December, 1966, the trip allowance was reduced to \$10.00 due to the removal of the toll charge of \$0.50 on Lulu Island bridge (Ex. 1525(i)).

The average travelling expenses paid per establishment pilot were \$1,-381.63 in 1961 and \$1,477.06 in 1967.

COMMENTS

This expense allowance system is illegal because it is contrary to the governing By-law provision but it is considered that the system has its merits and should be retained through an appropriate amendment to the By-law. Care should be taken, however, that the amount is realistic; otherwise, it becomes a way of concealing actual earnings. It would appear that the best method would be a combination of both, i.e., a minimum expense allowance for which no receipts are required and larger expenditures to be claimed for with accompanying receipts.

(b) Expenditures Paid to or on behalf of the Pilots

These are composed mainly of four items or groups of items: fringe benefits, expenditures paid out of the pool for the pilots as a group, pension contributions and pilots' remuneration. In 1961 and 1967, their total accounted for 76.2 per cent and 73.0 per cent of the total gross earnings of the District.

(i) Cost of fringe benefits

These are premiums or contributions to health insurance, travel insurance carried by the pilots as a group, Workmen's Compensation and, since 1967, the Canada Pension Plan. These amounted to \$1,449.40 in 1961 and to \$2,839.90 in 1967.

With regard to Workmen's Compensation coverage, the New Westminster pilots are considered employees of the Authority. In accordance with the British Columbia Act, the whole contribution is paid by the Authority as the employer. On February 26, 1959, the Workmen's Compensation Board of British Columbia wrote to the New Westminster District Pilotage Authority (Ex. 176), indicating that part of the pilots' work which is covered under the Act:

"Where the pilot proceeds from his home to Steveston by what ever transportation is available his coverage would only commence when he reached the wharf at Steveston in preparation to board the motor launch. Coverage would remain in effect on the said pilot until the time the ship has been berthed at New Westminster but coverage would not be extended after leaving the ship or the office of the Pilotage Authority."

Therefore, on account of this ruling the pilots were not covered while travelling between home and Steveston and home and the pilots' office or the various berths. At the time, they considered the possibility of abandoning Workmen's Compensation coverage as the B.C. pilots had done but, instead, decided that it would be best to retain it since it was reliable and less expensive, and offered the best protection. However, in order to protect themselves against travel accidents not covered by the Workmen's Compensation Act, they, as a group, took out an accident policy which provided a benefit of \$150 per week plus death benefit, at the cost of an annual group premium of \$560.

In addition, the pilots also carry group health insurance with the C.U. & C. Health Service Society, the cost of which is paid out of District revenues.

(ii) *Expenses paid for the pilots as a group*

These mainly comprise convention expenses, food for pilots in the pilot vessel, bonuses and presents.

The convention item appeared for the first time in 1961. For the years 1961 and 1962 the amount was \$100 per year and it was raised to \$500 in 1963. In his letter dated January 14, 1965 (Ex. 1427(o)), the Secretary explains this item as follows:

"The item for convention expense is to defray or help defray the cost of sending a delegate to the National Pilots' Convention. Most years the delegate from the B.C. district acts for the New Westminster pilots and they pay \$100.00 towards his expense. In 1963 the New Westminster pilots sent their own delegate, hence the added expense in that year. It is considered that the exchange of ideas and information is of mutual benefit to both the pilots and the district and is therefore a district expense."

In 1964 and 1965, it was \$100, in 1966, \$210.65. For 1967, it is not entered as a separate item but is included in the item "Miscellaneous" —\$150.

In 1963, a new item was added: "pilot boat grub", \$185.56. As stated earlier (p. 338), up to that time the pilots paid for this food out of their own pockets at the rate of \$5 to \$7 per month per pilot. In the same letter (Ex. 1427 (o)), the Secretary explains this new item as follows:

"Concerning the "Pilot Boat Grub" item; up until 1960 the pilot boat was operated by the district and grub for the boatmen and pilots was charged as supplies to the pilot boat operation. When the boat was taken over by the D.O.T. the boatmen were given a grub allowance and the grub was discontinued. The pilots then contributed personally to a pot to supply the needed supplies; however, everyone, including the boatmen and the B.C. pilots were using the supplies and very few were contributing. Therefore, during 1963 it was agreed to again provide the grub for the pilots use as an expense against the district. The amount was set at \$25.00 per month and is being maintained at that at the present."

Among these miscellaneous expenses is the item "bonuses and presents" which belongs to this group. It appears from the minutes of their meetings that these are voted by the pilots and paid by the Secretary out of the Pilotage Fund and, therefore, indirectly on behalf of the pilots. In fact, they are paid by the pilots out of their own money. However, the amount is not disclosed and it is not possible to segregate this item from the others included in the item "Miscellaneous". The Secretary, in his letter dated January 14, 1965 (Ex. 1427(o)) explains as follows:

"With regards "bonuses and presents"; it has been the custom for many years to give presents at Christmas time of liquor, cigars, chocolates, gift certificates, etc, to various people who have been of service and have given excellent cooperation during the year. These would include such people as line-men, dock gatemen, marine radio operators, boatmen, etc. Also there are sometimes small cash presents to the secretary and assistant. These presents are paid out of the pilotage fund and are included in miscellaneous expense."

(iii) *Pension contributions*

Formerly, in addition to the compulsory contributions to the Pilot Fund, the pension fund was also credited with fines, examination fees, licence fees, dues collected from ships not taking pilots and the other items of revenue not derived from pilotage dues, such as the revenue from rental of the Steveston property. This last source of revenue no longer exists since the transfer of the property to the Department of Transport.

On October 1, 1958, when the nature of the Pilot Fund was changed (p. 369), this practice was discontinued because it was felt that the involved accounting process which would be necessary to allocate these revenues in prorated credits to individual pilots was not justified in view of the small amount involved. With the approval of the Department of Transport, the governing provision in the By-law (sec. 52, 1930 By-law) was deleted. Therefore, since the small revenues derived from these items are not attributed to any special purpose, they become part of the net earnings and thus are shared among the pilots. (Exs. 1427 (g) and (n)).

Therefore, the sole source of revenue for the pension scheme is derived from the compulsory contributions which are currently set at 7 per cent of the gross District revenues after deduction of the auxiliary service charges.

(iv) *Pilots' remuneration*

What remains after the foregoing expenditures have been effected is the net revenue which belongs to the pilots who were on strength during that month. It is divided among them in equal shares pro rata for the time they were available. A probationary pilot receives 75 per cent of a permanent pilot's share.

The share thus computed is considered a pilot's salary for income tax purposes (pp. 344-345). From it, the Authority deducts, as if it were the employer, the pilot's income tax and the pilot's contribution to the Canada Pension Plan.

8. PENSION FUND

The New Westminster District pension fund was created by the 1930 General By-law. Up to 1958, it provided for fixed benefits per year of service in return for variable contributions in the form of a percentage of the District pilotage earnings. Seven per cent of the District gross revenue was deposited annually in the bank for the superannuation fund and, when sufficient money had accumulated, the Pilotage Authority invested it in Dominion Government bonds.

In 1958, the only four pilots on strength were dissatisfied with their pension plan because of the small benefits derived from their comparatively large annual contributions, nor could such a small group hope to receive greater benefits and keep the fund actuarially sound. Therefore, they negotiated with various insurance companies for a more suitable plan and accept-

ed from the North American Life Assurance Company an offer of a money-purchase scheme in the form of an employer-employee group retirement policy.

Effective October 1, 1958, the Authority, with the approval of the Department of Transport and the Department of Finance and at the request of the pilots (four active and two retired), contracted out the existing pension scheme and transferred the accumulated pension fund to the Assurance Company. The District statement of "receipts and payments" for the fiscal year ending March 31, 1959, shows a payment to the North American Life Assurance Company of \$99,205.58, thus reducing the superannuation fund to nil.

The Department of Transport stated that a pension plan for this District did not require its approval and the action it took was simply an effort to be helpful. The Pilotage Authority had not elected to have the pension fund administered by the Federal Government in accordance with the option purportedly contained in sec. 366, 1934 C.S.A. However, on behalf of the New Westminster Pilotage Authority, the Department of Transport consulted the actuaries in the Department of Insurance and forwarded their advice both to the Authority, and the pilots. The Department also reminded the pilots of the apparent incompatibility of the proposed plan on account of their legal status (p. 332).

The group retirement policy now in force is based on an individual contribution of \$900 per annum, and any amount paid in excess increases the individual pilot's pension. A pilot joining at the age of 35 and retiring at the age of 65 now receives a basic pension of \$340 per month instead of \$150 under the former plan (Ex. 175).

The policy provides the individual pilot with several options. For example, if he terminates his "employment" before reaching retirement age he may elect either (a) to surrender his membership in the plan and receive a single cash payment equal to the value of all the contributions made on his behalf, or (b) to receive a paid up deferred annuity which commences at his normal retirement date. If he dies before reaching retirement age, his beneficiaries receive the equivalent of all the contributions made on his behalf. However, once he joins the plan he can not withdraw his contributions unless he leaves "the service of his employer" (Ex. 151).

The plan had a retroactive clause which provided increased pensions for the two retired pilots. The Assurance Company took over their share in the original fund and bought each of them a share in the new pension plan (Ex. 175).

The District By-law was redrafted to cover the new situation (P.C. 1960/1035, dated July 28, 1960). The former sections dealing with pension benefits, together with those attributing to the pension fund the revenues from fines, examination and licence fees, and dues collected from ships not

using pilots (p. 254), were deleted, but the provisions for compulsory deductions at source of pension contributions and for determining the annual amount to be set aside for pension purposes were retained. The Pilotage Authority continues to deduct annually 7 per cent of the gross revenue of the District as a first charge against the pilotage fund and pays this amount to the North American Life Assurance Company. So far, the 7 per cent deduction has been more than sufficient to meet the basic contractual requirement of \$900 per active pilot. For comments, vide Part I, page 452.

ADDENDUM

(vide pp. 280 and 335)

The first shipping casualty at the railway bridge since 1934 with a pilot aboard occurred July 2, 1968. It involved the S.S. *Harry Lundeberg*, a conventional ship with bridge amidships, 524'10" in length, a regular trader making eight or ten visits annually to New Westminster with a cargo of bulk gypsum which is unloaded at the Domtar berth, approximately one mile above the railway bridge. After discharging her cargo the ship left the Domtar berth at 20.30 and proceeded downstream. When negotiating the south draw of the railway bridge, first her bow and then her stern collided with the open swing span causing considerable damage to it and necessitating closure of the bridge to railway traffic. The ship also suffered substantial damages which, however, did not prevent her from proceeding.

From the information available, it would appear that the blame for the accident can be laid on neither the pilot nor the Master but on the navigational hazard caused by the freshet. The rule adopted by the pilots is not to take a ship down river through the railway bridge when the water level gauge at Mission City reaches twenty feet or more. On this occasion the gauge read 19.03 feet, thereby indicating that the river was considerably above normal. The current at the bridge was running at approximately five or six knots. The ship was proceeding downstream at half speed (estimated to be six or seven knots through the water) but when approximately one half mile above the bridge the engines were put at full speed with the intention of securing the maximum steering control. (Ex. 1525(k)).

Chapter D

RECOMMENDATIONS

SPECIFIC RECOMMENDATIONS AFFECTING THE NEW WESTMINSTER PILOTAGE DISTRICT

RECOMMENDATION No. 1

The New Westminster District to Remain a Separate Pilotage District with the Harbour of Vancouver and the Proposed Roberts Bank Port and Connecting Waters as Joint Territory for the Sole Purpose of Allowing the New Westminster Pilots to Commence or Terminate Fraser River Trips

According to the criteria enunciated in the Commission's General Recommendation 8 (Part I, pp. 476 and ff.), the navigable waters of the Fraser River should remain a separate Pilotage District. Because of the physical features of its channels, the effects of the tides and the changeable water conditions, the New Westminster pilots require a high degree of local knowledge and experience, constantly maintained. In view of the small number of vessels employing pilots, this requirement can not be met unless a small group of pilots is constantly and exclusively engaged in the navigation of these waters.

This opinion, which has long been generally recognized, was also the conclusion of two previous Royal Commissions: the Robb Commission in 1918 (p. 255) and the Morrison Commission in 1928 (p. 255).

A separate pilotage service normally should have its own Pilotage Authority. A Pilotage Authority fully conversant with the needs of its service and available to exercise constant surveillance and act promptly when emergencies arise is an essential condition if the service is to be efficient. (General Recommendation 8)

The extent of these demanding responsibilities in the New Westminster District precludes their assumption by any other Pilotage Authority. The only other available and sufficiently close to assume the task is the present B.C. District Pilotage Authority (or the Pilotage Authority of the proposed Gulf of Georgia District) but its own responsibilities are so great that it would be unable to give the New Westminster pilotage service the time and constant attention its administration and direction require.

All those concerned with the District agree that the local Pilotage Authority deserves great credit for its administration. The record shows that the members of the Authority have administered pilotage in a very efficient and business-like manner. All matters within its jurisdiction have been attended to quickly and adequately, in sharp contrast with the British Columbia District and other Districts where the function of Pilotage Authority is centralized in the Minister of Transport. Administration centred in Ottawa has caused bitter complaints by both the pilots and the shipping interests.

The sole objection to the present system at New Westminster is economic. The overly high aggregate pilotage costs a vessel has to pay to reach New Westminster (pp. 355 and 356) adversely affect shipping, the port and the pilots. The shipowners' suggestion of a merger with the B.C. District and the pilots' recommendation that the Minister become their Pilotage Authority are only attempts to correct this economic drawback.

If the provision of an efficient, reliable pilotage service is required in the public interest, as this Commission considers it to be (vide next Recommendation), the question of finance should not be allowed to become an obstacle. For this reason alone, no attempts should be made to change an organization that has proved most necessary and highly efficient.

There are, however, other ways of dealing with the economic situation without disturbing the present basic organization.

The best solution to the pilots' problem is for them to become employees of the Authority (p. 357). Thus they would receive an adequate fixed salary for given working conditions with additional remuneration for overtime work in peak periods, plus fringe benefits. Otherwise, the pilots' financial plight will grow more serious as the District gradually deteriorates.

However, this solution would not reduce the cost of pilotage to shipping. A partial answer would be to reduce aggregate pilotage costs as much as possible by correcting the present discrimination against the New Westminster District contained in the present B.C. tariff (as already stated, p. 355). In addition, as recommended by Pacific Coast Terminals Limited (p. 263), the New Westminster pilots should be allowed to commence or terminate their pilotage trips in the ports adjacent to their seaward District limit, i.e., the Harbour of Vancouver and the proposed Roberts Bank port. The Sand Heads area should also be a joint boarding station (B.C. Recommendation No. 2, p. 200).

The evidence indicates that about 30 per cent of the New Westminster pilotage traffic is bound either from or to Vancouver. It would not be difficult for the New Westminster pilots to acquire the required local knowledge and skill to pilot from Sand Heads to Vancouver Harbour and to berth or unberth there. Such extended trips would call for higher pilotage charges but these would be substantially lower than the present combined New Westminster and B.C. charges (p. 355). Furthermore, this procedure would have the

definite advantage of saving pilots' time, since assignments would be performed by one pilot instead of two, as at present. It would not unduly increase the overall New Westminster pilots' workload, and would free the existing B.C. District, or the proposed Gulf of Georgia District, of a substantial number of small assignments. It would also partly solve the pilots' complaint regarding prolonged detention on board the pilot vessel (p. 339).

The remaining aspects of the economic problem will have to be met through financial assistance from an outside source. This could be the Central Authority's proposed Equalization Trust Fund if the Commission's General Recommendation 21 is implemented.

RECOMMENDATION No. 2

Pilotage Waters in the District of New Westminster to be Classified as a Public Service for the Time Being

From the view point of safety of navigation, an adequate, efficient pilotage service for the Fraser River is unquestionably necessary. Unless a vessel is of shallow draught, navigation on the river requires a high degree of local knowledge and experience and, because the channel is so narrow, a major casualty may well block access to New Westminster for a considerable period of time. Furthermore, there is no doubt that without an adequate pilotage service New Westminster would be, to all intents and purposes, inaccessible to modern ocean-going traffic.

However, the importance of pilotage on the river must be assessed, first, in terms of the national economy and second, of the surrounding area. It must be ascertained whether New Westminster is not gradually growing obsolescent as an ocean seaport and, if so, whether this is contrary to the public interest.

At first sight, it would appear that New Westminster is maintained as a seaport because of an inheritance from the past which has continued through the years although the circumstances and conditions that warranted its original creation have changed considerably. At the time of the mainland colony, the Fraser River was the main route to the interior of southern British Columbia. New Westminster was as far inland as most ocean-going vessels could proceed and no other port afforded such direct access to the Fraser valley. The situation is now totally different because the easily accessible deep-sea harbour of Vancouver has long since been created and, with the advent of modern transportation facilities, Vancouver is now as close to the interior of the province and the rest of Canada as New Westminster. Modern road transportation also seriously affects imports and exports by water to and from New Westminster and its immediate vicinity. Because of the limitations placed on ocean-going traffic by the natural and physical

features of the Fraser River, local industry often finds it more economical to ship products to Vancouver by truck or by scow than to have a ship call for a partial cargo.

The next question is: to what extent should public funds be expended to maintain New Westminster as a seaport? Should only maintenance work be carried out to enable the port to flourish as a coastal port while allowing it to decline gradually as an ocean seaport, or should capital works be undertaken to keep it accessible to ever larger ocean-going vessels? Such a policy would involve large capital expenditures for dredging the channel to a suitable depth, enlarging the channel at the bends to accommodate longer vessels and removing and relocating the railway bridge if the northern area of the harbour is also to be made more accessible. It would also require substantially increased recurrent expenditures for the maintenance of the improved channel.

The course of action that should be taken is a question of Government policy which is beyond the mandate of this Commission. When appraising the importance to the public of the pilotage service on the Fraser River the Commission must base its conclusions on present facts. Statistics clearly establish that New Westminster has become of secondary importance as a seaport (pp. 314-316) and that, on the other hand, the Government appears to be satisfied with the present situation because so far it has not seen fit to take remedial action. This factual situation would justify the conclusion that it is present Government policy to consider New Westminster mainly as a port for coastal and local traders and that the considerable expenditure of public funds which would be required to render it competitive as a seaport with Vancouver is not justified in the public interest. Furthermore, a major shipping casualty that might close the harbour to sea-going vessels, even for a considerable period of time, would not seriously affect the economy of the area because of the availability of adequate alternative transportation. In these circumstances, pilotage on the Fraser River can not be classified as an essential public service (re classification criteria, vide General Recommendation 17, Part I, pp. 507 and 509).

On the other hand, the Commission considers that the service still remains in the public interest and should be classified, for the time being, as a public service until subsequent developments make it necessary to reassess its importance to the public.

Chapter E

APPENDICES

APPENDIX A

Map—New Westminster Pilotage District.

APPENDIX B

- (1) Graph—1958–1967 Per Cent Increase (or Decrease) in Earnings and Workload of Pilots.
- (2) Table—1958–1967 Figures and Percentages on which the above Graph is based, giving the Number of Ships Piloted, Assignments, Net Tonnage Piloted, District Gross Earnings, Distribution to Pilots, Establishment of Pilots, Average “Take Home Pay”, and Sources of Information.

APPENDIX C

Table—1956–1967 Shipping Casualties, Accidents and Incidents Involving Pilots.

APPENDIX D

- (1) Graph—1961–1962 and 1966–1967: Total Assignments per Year; Total Assignments and Movages per Month Emphasizing Peaks and Lows as compared to Annual Monthly Average.
- (2) Table—1961–1962 and 1966–1967 Figures on which the above Graph is based, giving the Total Assignments per Month, per Year; Average Assignments per Year; Total Movages per Month, Total Movages per Year, Average Movages per Year, and their Source of Information.

APPENDIX E

- (1) Table—1961 and 1967 Comparative Analysis of Annual Financial Statements of the New Westminster District Pilotage Authority.
- (2) Table—1961 and 1967 Details of Expenditures (as shown on *Appendix E (1)*)—(a) District and Service Operating Expenses.
- (3) Table—1961 and 1967 Details of Expenditures continued—(b) Paid to or on Behalf of Pilots.

APPENDIX F

- (1) Table—Comparison of Charges according to the Tariff Prevailing in 1963 for the S.S. *Pacific Northwest*.
- (2) Table—1963 Computation of Dues for the S.S. *Pacific Northwest*.

Appendix A

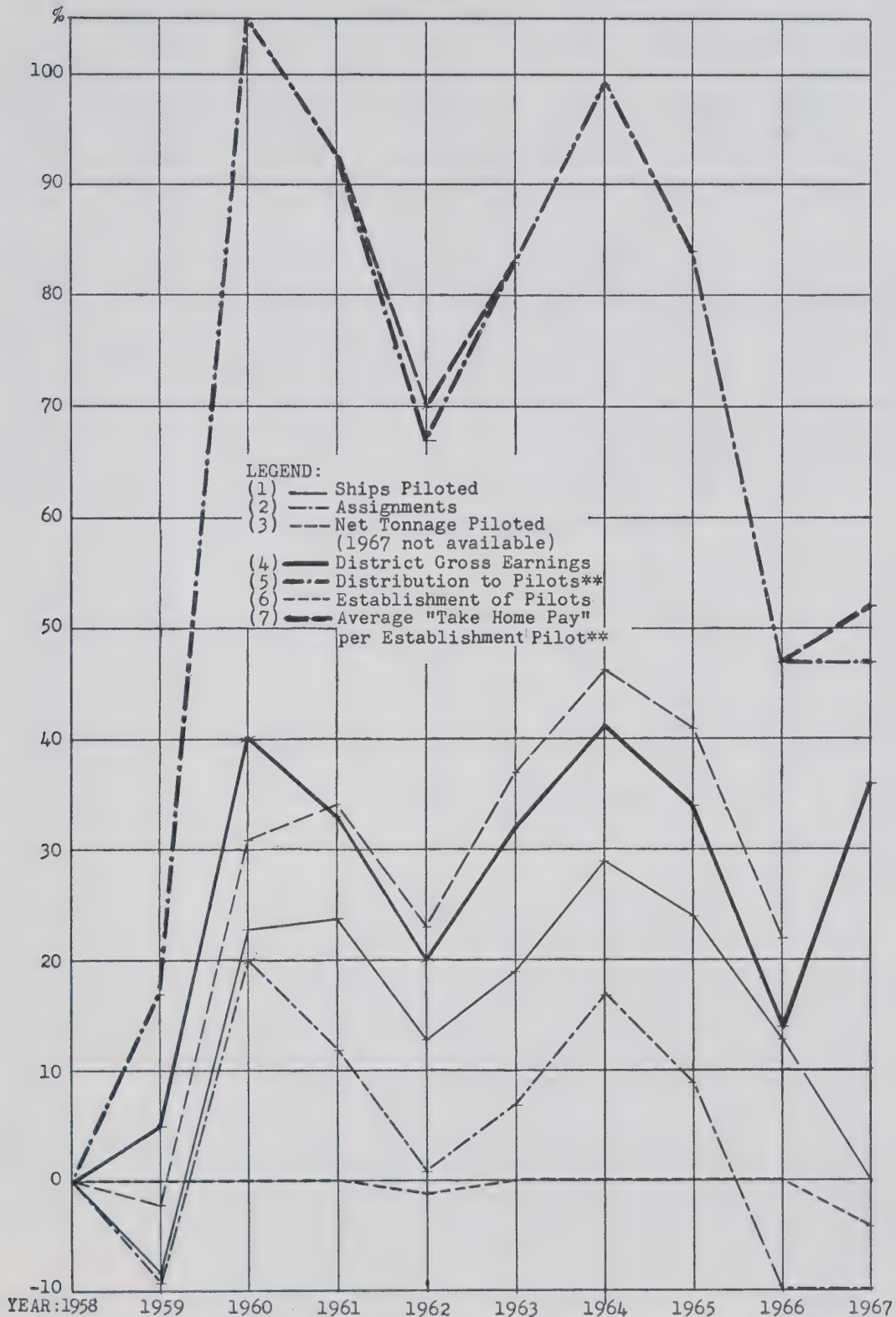
Appendix A to Part One of the Report shows the outline of all existing Pilotage Districts and pilotage areas in Canada.

When the general plan of the Report was drawn up, it was hoped to present detailed maps or charts of each District but it became apparent that they would exceed the reasonable scope of the individual Parts.

Observing that the basic material is already available, reference is invited to the catalogue published by the Canadian Hydrographic Service for detailed information.

Appendix B (1)

PER CENT INCREASE (OR DECREASE) IN EARNINGS AND WORKLOAD OF PILOTS



**As the percentage increase was almost equal for both "Distribution to Pilots" and "Average 'Take Home Pay' per Establishment" (except for the years 1962 and 1967), the line for the former was used (see "Legend" above).

Appendix B (2)

EARNINGS AND WORKLOAD OF PILOTS

Year	(1) Ships Piloted	(2) Assign- ments	(3) Net Tonnage Piloted	(4) District Gross Earnings	(5) Distribu- tion to Pilots	(6) Establish- ment of Pilots	(7) Average "Take Home Pay"
	#	#	#	\$	\$	#	\$
1958	482	1,156	1,872,698.0	103,891.81	53,342.02	7	7,620.29
1959	444	1,048	1,844,532.0	108,658.91	62,275.48	7	8,896.50
1960	594	1,384	2,449,481	145,019.55	109,518.15	7	15,645.45
1961	598	1,299	2,513,175	138,260.61	102,830.97	7	14,690.14
1962	546	1,165	2,309.991	124,565.48	89,261.03	6.91	12,917.66
1963	574	1,235	2,570,930.5	137,108.79	97,410.44	7	13,915.78
1964	621	1,353	2,728,736.5	146,933.95	105,941.54	7	15,134.51
1965	598	1,254	2,634,144	138,767.54	98,054.78	7	14,007.83
1966	496	1,037	2,290,216.5	118,512.48	78,141.34	7	11,163.05
1967	482	1,037	not available	141,416.42	78,141.34	6.75	11,576.50

PERCENTAGE INCREASE OR DECREASE

1958	.0	.0	.0	.0	.0	.0	.0
1959	-7.9	-9.3	-1.5	4.6	16.7	.0	16.8
1960	23.2	19.7	30.8	39.6	105.3	.0	105.3
1961	24.1	12.4	34.2	33.1	92.8	.0	92.8
1962	13.3	.8	23.4	19.9	67.3	-1.3	69.5
1963	19.1	6.8	37.3	32.0	82.6	.0	82.6
1964	28.8	17.0	45.7	41.4	98.6	.0	98.6
1965	24.1	8.5	40.7	33.6	83.8	.0	83.8
1966	2.9	-10.3	22.3	14.1	46.5	.0	46.5
1967	.0	-10.3	not available	36.1	46.5	-3.6	51.9

SOURCES OF INFORMATION:

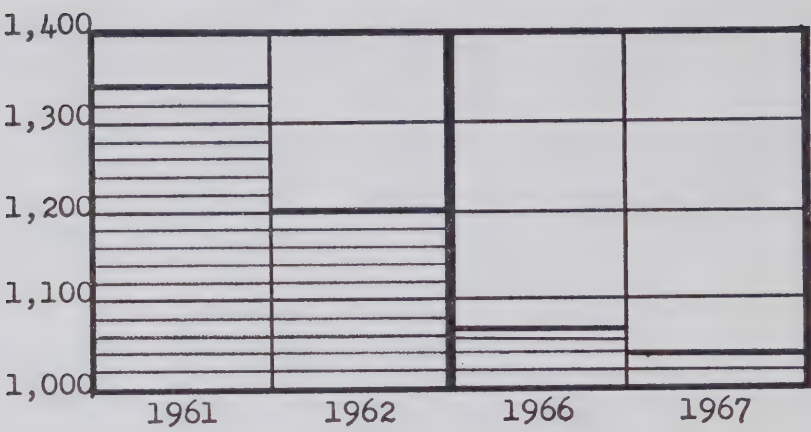
- (1) Ex. 161 (1958-1959) and Ex. 149 (1960-1967); vide pp. 314-315.
- (2) Ex. 161 (1958-1959) and Ex. 149 (1960-1967); vide *Appendix D*.
- (3) Ex. 161 (1958-1959) and Ex. 149 (1960-1966); vide pp. 314-315. The 1967 figure is not available due to the change from net to gross tonnage in 1967.
- (4) Ex. 152. In 1966, amount of \$118,512.48 is reported incorrectly on both the Annual Report (Ex. 149) and audited financial statements (Ex. 152); the correct amount is \$118,513.48.
- (5) Ex. 152; excludes amounts paid to Superannuation Fund.
- (6) Ex. 169 Appendix F (1958-1959) and Ex. 149 (1960-1967); the term *Establishment* means the number of pilots on a yearly basis, taking into consideration any increase (i.e., probationary pilots) and any decrease (retirements, etc.) that occurred during the year.
- (7) Divide column (5) by column (6); the difference between the above "Average 'Take Home Pay'" and the average earnings per pilot on the table on p. 344 is caused by the lesser amount earned by probationary pilots during the year.

SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS INVOLVING PILOTS*

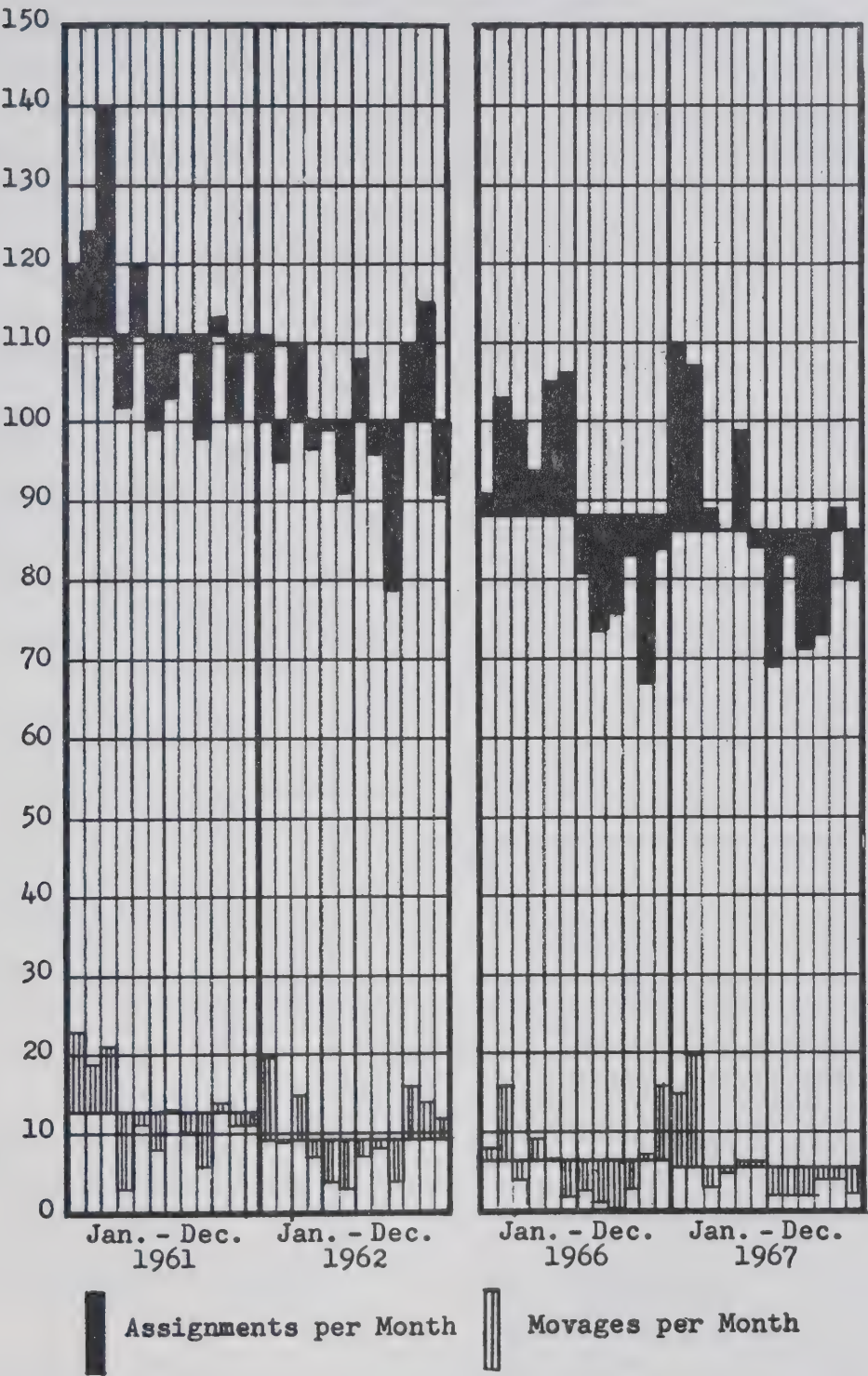
	1956	1958	1959	1961	1963	1964	1965	1966
TOTAL SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS INVOLVING PILOTS.....								
A. Events happening in the course of navigation.....								
I. Major casualties								
(a) Loss or abandonment of ship.....	1	1	1	3	5	10	5	5
(b) Major strandings.....	0	0	1	3	2	6	1	2
(c) Heavy damage to ship (other than above).....	0	0	0	0	0	0	0	0
II. Minor casualties								
(a) Minor strandings.....	0	0	1	2	0	1	1	1
(b) Minor damage to ship.....	0	0	0	1	0	0	0	0
III. Accidents (other than shipping casualties).....								
IV. Incidents								
(a) Touching bottom in channel.....	0	0	0	0	0	1	0	0
(b) Others.....	0	0	0	1	2	4	0	1
B. Events happening while berthing, un-berthing or at port anchorage								
I. Major casualties								
(a) Loss or abandonment of ship.....	1	1	0	0	3	4	4	3
(b) Major strandings.....	0	0	0	0	0	0	0	0
II. Minor casualties								
(a) Minor strandings.....	1	1	0	0	3	4	3	3
(b) Minor damage to ships.....	0	0	0	0	3	0	1	0
(i) Striking pier.....	0	0	0	0	3	4	2	3
(ii) Striking other vessels while berthing or unberthing.....	0	0	0	0	1	3	1	3
(iii) Striking vessels at anchorage.....	0	0	0	0	0	1	0	0
(iv) Others.....	0	0	0	0	1	0	0	0
III. Accidents (other than above).....								
IV. Incidents.....								
(a) Striking pier.....	0	0	0	0	0	0	0	0
(b) Striking other vessels while berthing or unberthing.....	0	0	0	0	0	0	1	0

*SOURCES OF INFORMATION: Exhibits 149, 213, 866, 1172, 1427s, and 1451. As there were no casualties reported for the years 1957, 1960, 1962 and 1967, these years were not included in the above tabulation.

Appendix D (1)
TOTAL ASSIGNMENTS PER YEAR



TOTAL ASSIGNMENTS AND MOVAGES PER MONTH
EMPHASIZING PEAKS AND LOWS AS COMPARED TO
ANNUAL MONTHLY AVERAGE



Appendix D (2)

TOTAL ASSIGNMENTS AND MOVAGES PER MONTH

Month	1961 ¹	1962 ¹	1966 ²	1967 ²
Total Assignments per Month:				
January.....	120	111	91	110
February.....	124	95	103	107
March.....	140	110	100	89
April.....	102	97	94	86
May.....	120	99	105	99
June.....	99	91	106	84
July.....	103	108	81	69
August.....	109	96	74	83
September.....	98	79	76	71
October.....	113	110	83	73
November.....	100	115	67	89
December.....	109	91	84	80
Total Assignments per Year ³	1,337	1,202	1,064	1,040
Average Assignments per Year.....	111.41	100.16	88.67	86.67
Total Movages per Month:				
January.....	23	20	8	15
February.....	19	9	16	20
March.....	21	15	4	3
April.....	3	7	9	5
May.....	11	4	6	6
June.....	8	3	2	6
July.....	13	7	3	2
August.....	10	8	1	2
September.....	6	4	0	2
October.....	14	16	3	4
November.....	11	14	7	4
December.....	11	12	16	2
Total Movages per Year ³	150	119	75	71
Average Movages per Year.....	12.50	9.92	6.25	5.92

¹SOURCE OF INFORMATION: Ex. 169 (Schedule "D" of Brief 9) submitted by the pilots of the Pilotage District of New Westminster.

²SOURCE OF INFORMATION: Ex. 1525(c).

³The total number of assignments figure is the aggregate of trips and movages. The figures quoted in this table ¹⁻² do not quite agree with those quoted on the District Annual Report (Ex. 149); they are slightly higher.

Appendix E (1)

COMPARATIVE ANALYSIS OF ANNUAL FINANCIAL
STATEMENTS OF THE NEW WESTMINSTER DISTRICT
PILOTAGE AUTHORITY*

A. REVENUES	1961			1967		
	\$	\$	%	\$	\$	%
(a) PILOTAGE DUES						
Pilotage services.....	138,260.61		92.5	141,416.42		92.9
Auxiliary services.....	11,210.00		7.5	10,893.75		7.1
		149,470.61	100.0		152,310.17	100.0
(b) MISCELLANEOUS						
Overcarriage and quarantine.....	—		—	—		—
Examination fees.....	—		—	—		—
Licence fees.....	—		—	—		—
Fines.....	—		—	—		—
Workmen's compensation..	—		—	—		—
Group insurance.....	—		—	—		—
Others.....	—		—	—		—
		—	—		—	—
		149,470.61	100.0		152,310.17	100.0
B. EXPENDITURES**						
(a) DISTRICT AND SERVICE OPERATING EXPENSES						
Auxiliary services.....		11,210.00	7.5		10,893.75	7.2
District general expenses:						
Staff expenses.....	12,320.44		8.2	15,108.13		9.9
Office expenses.....	3,418.32		2.3	4,448.56		2.9
Pilots' travel expenses....	8,500.50		5.7	10,568.70		6.9
		24,239.26	16.2		30,125.39	19.7
		35,449.26	23.7		41,019.14	26.9
(b) PAID TO OR ON BEHALF OF PILOTS						
Cost of fringe benefits.....	1,450.22		1.0	2,839.90		1.9
Expenses paid for the pilots as a group.....	100.00		.1	450.00		.3
Pension contribution.....	9,671.41		6.4	9,896.31		6.5
Pilots' remuneration†.....	102,799.72		68.8	98,104.82		64.4
		114,021.35	76.2		111,291.03	73.1
		149,470.61	100.0		152,310.17	100.0

*SOURCE OF INFORMATION: Ex. 152; vide pp. 344 and 378.

**For further details of expenditures, vide Appendices E(2) and E(3).

†Actual pilot's share: 1961—\$14,690.13; 1967—\$14,310.78.

Appendix E (2)*

DETAILS OF EXPENDITURES (As shown on Appendix E (1))

B. EXPENDITURES	1961			1967		
	\$	\$	%	\$	\$	%
(a) DISTRICT AND SERVICE OPERATING EXPENSES						
(i) <i>Auxiliary Services</i>						
Pilot vessel.....	11,210.00		7.5	9,169.41†		6.0
Radiotelephone.....	—		—	1,724.34†		1.2
		11,210.00	7.5		10,893.75†	7.2
(ii) <i>District General Expenses</i>						
Staff Expenses						
Salaries.....	11,325.00		7.6	13,900.00		9.1
Unemployment insurance.....	48.96		.0	48.96		.0
Workmen's compensation....	194.50		.1	255.00		.2
Health plan.....	87.00		.0	101.70		.1
Pension plan.....	664.98		.5	802.47		.5
	12,320.44		8.2	15,108.13		9.9
Office Expenses						
Rent.....	900.00		.6	1,008.00		.7
Laundry.....	46.95		.0	42.15		.0
Janitor services.....	60.00		.0	162.00		.1
Telephone/telegraph.....	1,025.83		.7	1,362.24		.9
Postage.....	55.00		.0	39.50		.0
Supplies/stationery.....	248.66		.2	498.92		.3
Light.....	18.12		.0	17.76		.0
Advertising.....	30.98		.0	157.72		.1
Legal and audit.....	380.00		.3	315.00		.2
Bank charges.....	21.50		.0	6.80		.0
Miscellaneous**.....	631.28		.4	838.47		.6
	3,418.32		2.2	4,448.56		2.9
Pilots' Travelling Expenses.....	8,500.50		5.7	10,568.70		6.9
		24,239.26	16.1		30,125.39	19.7
		35,449.26	23.6		41,019.14	26.9

*SOURCE OF INFORMATION: Ex. 152; vide pp. 344 and 378.

**There are pilots' group expenses contained in the District operating expenses item *Miscellaneous, inter alia*, "bonuses and presents" and "pilot boat grub"; not being segregated, they can not be listed.

†Due to a difference in accounting procedures, there is a slight discrepancy of \$95.75 between the amount of \$10,893.75 reported on the Pilotage Authority's audited financial statements (Ex. 152) and the amount paid to the Federal Government of \$10,989.50. It was, therefore, necessary to apportion the figures for *pilot vessel* and *radiotelephone* respectively.

Appendix E (3)*
 DETAILS OF EXPENDITURES
 (As shown on Appendix E (1)) (continued)

B. EXPENDITURES (contd.)	1961			1967		
	\$	\$	%	\$	\$	%
(b) PAID TO OR ON BEHALF OF PILOTS						
(i) <i>Cost of Fringe Benefits</i>						
Health insurance.....	449.40		.3	501.50		.3
Travel insurance.....	560.00		.4	560.00		.4
Workmen's compensation	440.82		.3	1,224.00		.8
Canada pension plan.....	n/a		—	554.40		.4
	1,450.22		1.0	2,839.90		1.9
(ii) <i>Expenses Paid for the Pilots as a Group</i>						
Convention expenses.....	100.00		.1	150.00		.1
Pilot boat "grub"***	n/a		—	300.00		.2
Bonuses and presents**....	—		—	—		—
	100.00		.1	450.00		.3
(iii) <i>Pension Contribution..</i>	9,671.41		6.4	9,896.31		6.5
(iv) <i>Pilots' Remuneration†..</i>	102,799.72		68.8	98,104.82		64.4
	114,021.35		76.2	111,291.03		73.1
	149,470.61		100.0	152,310.17		100.0

*SOURCE OF INFORMATION: Ex. 152; vide pp. 344 and 378.

**There are pilots' group expenses contained in the District operating expenses item *Miscellaneous, inter alia*, "bonuses and presents" and "pilot boat grub"; not being segregated, they can not be listed.

†Actual pilot's share: 1961—\$14,690.13; 1967—\$14,310.78.

Appendix F (1)

COMPARISON OF CHARGES
ACCORDING TO THE TARIFF PREVAILING IN 1963*
FOR THE S.S. *PACIFIC NORTHWEST***

(Gross Tons, 9442; Net Tons, 5229)
(Draught in, 20 Feet; Draught out, 24 Feet)

SEA TO NEW WESTMINSTER AND RETURN	VANCOUVER TO NEW WESTMINSTER AND RETURN
IN: Sea to Sand Heads..... 125.59 ⁽³⁾ Sand Heads to New Westminster..... 133.88 ⁽¹⁾ 259.47	IN: Vancouver to Sand Heads..... 150.82 ⁽⁵⁾ Sand Heads to New Westminster.... 133.88 ⁽¹⁾ 284.70
OUT: New Westminster to Sand Heads..... 144.28 ⁽²⁾ Sand Heads to Sea..... 129.59 ⁽⁴⁾ 273.87	OUT: New Westminster to Sand Heads..... 144.28 ⁽²⁾ Sand Heads to Vancouver..... 158.82 ⁽⁶⁾ 303.10
ROUND TRIP: \$533.34	ROUND TRIP: \$587.80

⁽¹⁾–⁽⁶⁾For computation of dues, vide *Appendix F (2)*.

SEA TO VANCOUVER AND RETURN	VANCOUVER TO NANAIMO AND RETURN
IN: Sea to Vancouver..... 142.81 ⁽⁷⁾	IN: Vancouver to Nanaimo..... 163.94 ⁽⁹⁾
OUT: Vancouver to Sea..... 146.81 ⁽⁸⁾	OUT: Nanaimo to Vancouver..... 171.94 ⁽¹⁰⁾
ROUND TRIP: \$289.62	ROUND TRIP: \$335.88

⁽⁷⁾–⁽¹⁰⁾For computation of dues, vide *Appendix F (2)*.

SOURCES OF INFORMATION:

*Exhibit 1430.

**Exhibit 188.

Appendix F (2)

COMPUTATION OF DUES FOR THE S.S. *PACIFIC NORTHWEST*

(Gross Tons, 9442; Net Tons, 5229)
(Draught in, 20 feet; Draught out, 24 feet)

New Westminster Charges	Draught*	Tonnage**	Boat‡	Total
(1) Sand Heads to New Westminster.....	52.00	71.88	10.00	133.88
(2) New Westminster to Sand Heads.....	62.40	71.88	10.00	144.28

	In	Out
*Draught @ \$2.60 per foot.....	52.00	62.40
**Tonnage @ 1.3 cents per N.R.T.....	71.88	71.88
‡Sand Heads boat @ \$10.00 per trip.....	10.00	10.00

British Columbia Charges	Port*	Mileage**	Boat‡	Total
(3) Sea to Sand Heads.....	67.21	48.38	10.00	125.59
(4) Sand Heads to Sea.....	71.21	48.38	10.00	129.59
(5) Vancouver to Sand Heads.....	134.42	16.40	Nil	150.82
(6) Sand Heads to Vancouver.....	142.42	16.40	Nil	158.82
(7) Sea to Vancouver.....	67.21	65.60	10.00	142.81
(8) Vancouver to Sea.....	71.21	65.60	10.00	146.81
(9) Vancouver to Nanaimo.....	134.42	29.52	Nil	163.94
(10) Nanaimo to Vancouver.....	142.42	29.52	Nil	171.94

	In	Out
*Port Charge:		
Draught @ \$1.00 per foot.....	20.00	24.00
Tonnage @ 1/2 cent per G.R.T.....	47.21	47.21
	67.21	71.21
	× 2	× 2
	134.42	142.42

**Mileage Charge @ 82 cents per mile:		
Sand Heads to Sea.....59 miles	48.38	48.38
Vancouver to Sand Heads.....20 miles	16.40	16.40
Sea to Vancouver.....80 miles	65.60	65.60
Vancouver to Nanaimo.....36 miles	29.52	29.52
‡Brotchie Ledge boat @ \$10.00 per trip.....	10.00	10.00

SOURCES OF INFORMATION: Exhibits 188 and 1430.

Section Three

PILOTAGE DISTRICT OF CHURCHILL

Chapter A

LEGISLATION

1. LAW AND REGULATIONS

PREAMBLE

There is no special provision in the Canada Shipping Act which applies solely to the Pilotage District of Churchill; the District legislation takes the form of an Order in Council, a General By-law and regulations which are studied hereunder.

(1) GOVERNOR IN COUNCIL ORDERS MADE PURSUANT TO THE CANADA SHIPPING ACT

The only Order in Council of this nature is P.C. 1416 dated July 13, 1933, which created the District, fixed its limits, appointed its Authority and ordered the compulsory payment of pilotage dues (Ex. 611). This P.C. has never been revoked or amended.

The Governor in Council acted under the authority of secs. 398, 412 and 414 of the 1927 Canada Shipping Act which correspond in substance to secs. 324, 326 and 327 of the existing Act.

(a) *Creation of the District*

The Order in Council referred to above merely provides that, pursuant to the aforesaid sections of the Act, "a Pilotage District to be known as the Churchill Pilotage District be established with the following limits". The reasons that prevailed for the creation of a Pilotage District in that area are not disclosed but they are obvious from contemporaneous events (vide *History of Legislation*).

(b) *District Limits*

The limits of the District, which are the same as those of the harbour, are thus fixed:

"To include all the waters of Hudson Bay and the Churchill River within the following described boundaries: Commencing at the northern extremity of Eskimo Point and running on a course due north to a point distant five nautical miles from the Eskimo Point beacon; thence on the circumference of a circle with the said beacon as a centre, easterly and southerly to the shore of Hudson Bay at the high water line; thence following the said high water line westerly to Cape Merry;

thence following the high water line on the eastern shore of the Churchill River upstream as far as the tide ebbs and flows; thence across the Churchill River to its western shore; thence northerly and following the high water line down stream to the point at Old Fort Prince of Wales and across to Eskimo Point and to the place of beginning," (Ex. 1471(c)).

(c) Pilotage Authority

In the Order in Council, the Pilotage Authority is designated as follows: "...pursuant to section 414 of the said Act, the Minister of Marine is appointed the Pilotage Authority for the said District".

There is no longer such an office as the Minister of Marine. In other Districts where the Minister was the Pilotage Authority it was felt advisable to amend the previous appointments by a new Order in Council in order to designate the Pilotage Authority correctly. The last such Order in Council was passed August 15, 1956 (P.C. 1956-1264, Ex. 1143, which revoked the previous Order in Council dated June 30, 1933, P.C. 1307). All the Districts for which the Minister of Transport was Pilotage Authority were listed except Churchill which was omitted for reasons unknown.

However, this omission is of no consequence. P.C. 1956-1264 was useful and desirable for the purpose of clarifying the legal position but it was unnecessary because the point had been covered in the various acts which defined the changes made in the former Department of Marine and which had the additional effect that the Minister of Transport was to perform the functions of the Minister of Marine.

(d) Compulsory System

In the Order in Council which created the District, the Governor in Council, pursuant to sec. 412 of the 1927 Canada Shipping Act, made the payment of pilotage dues compulsory.

(2) PROVISIONS NOT EMANATING FROM THE C.S.A. AFFECTING THE ORGANIZATION OF THE PILOTAGE DISTRICT

In the Pilotage Districts where the Minister is the Pilotage Authority there is generally an Order in Council authorizing the Department of Transport to furnish the pilot vessel service and the pilot stations and to assume their costs. There is no such Order in Council for the District of Churchill as the pilot vessel service is not furnished by the Department of Transport, and there is no pilot station nor any local staff. What little administration there is, is carried out at Ottawa headquarters on the strength of the reports furnished by the two pilots.

No specific authority was required to authorize the National Harbours Board to place their harbour tugs at the disposal of the pilots for pilot vessel service.

(3) PILOTAGE AUTHORITY ENACTMENTS
APPROVED BY GOVERNOR IN COUNCIL

(a) *Appointment of Secretary-Treasurer and Payment of District Expenses (sec. 328, Canada Shipping Act)*

As is the practice in Districts where the Minister is the Pilotage Authority, no Secretary-Treasurer has been appointed. There is no Order in Council made under sec. 328 Canada Shipping Act to authorize the payment of District operating costs out of pilotage revenues and no such authorization was ever sought. The cost of the pilot vessel service to the pilots is fixed by the District General By-law (subsec. 5(2)) as the amount of the pilotage dues charged ships for this purpose which the National Harbours Board has accepted as the price of its services. According to the By-law provision, the pilot boat charge is paid over to the National Harbours Board when collected.

(b) *Delegation of Powers by the Minister as Pilotage Authority (subsec. 327(2) Canada Shipping Act)*

At no time did the Churchill Pilotage Authority pass any by-law pursuant to subsec. 327(2) by which any of the powers of the Pilotage Authority were delegated. There is not even such a delegation in the District General By-law passed under sec. 329 where it is generally found. Churchill is not provided with a local representative of the Pilotage Authority and there is no Superintendent or Supervisor of Pilots.

(c) *Exemptions and Withdrawal of Exemptions (secs. 346, 347 and 357 Canada Shipping Act)*

The Churchill Pilotage Authority has made no by-law pursuant either to subsec. 346(c) or sec. 347, or subsec. 357(2), nor is the subject dealt with in the General By-Law made and approved pursuant to sec. 329 as is done elsewhere (vide Part I, p. 248).

Therefore, all the statutory exemptions of sec. 346 prevail and no exemption is provided for small foreign vessels under 250 tons because the Pilotage Authority has not seen fit to do so as was permissible under subsec. 346(c). Hence, any small ships of non-Dominion registry, even yachts or fishing vessels however small, are subject to the payment of dues (Part I, p. 227).

There is, however, an exemption which is indirectly and purportedly granted by the General By-law resulting from the definition of the word "vessel" in the Interpretation section (subsec. 2(f)) which does not correspond to the definition of "vessel" in the Canada Shipping Act. By the

By-law definition “an undecked barge that has no living accommodation and that is not¹ self-propelled” is excluded from the meaning of “vessel” for which pilotage dues are provided in the schedule of the By-law. This provision is illegal (vide Part I, pp. 218 and ff.).

(d) *General By-law Passed Under Sec. 329 Canada Shipping Act*

The General By-law now in force was approved by P.C. 1966-1623 dated August 24, 1966 (Ex. 611). It has since been amended in 1967 (P.C. 1967-1819 dated Sept. 21, 1967). The 1966 Order in Council repealed the previous General By-law, P.C. 1961-1799 dated December 14, 1961, as amended by P.C. 1964-958 dated June 25, 1964, which revoked P.C. 1960-873 dated June 23, 1960 (Ex. 1471(d)) which repealed the first General By-law that existed for the District, i.e., P.C. 1546 dated August 1, 1933 (Ex. 1471(a)).

This By-law is unique because of its brevity. It is probable that the Pilotage Authority felt no further legislation was indicated because of the special circumstances and conditions at Churchill. In any event, the Pilotage Authority took advantage of only three provisions of sec. 329 C.S.A. and, therefore, the powers derived from the By-law are very limited.

Apart from the contentious exemption for “undecked barge”, the By-law contains only the following provisions:—

- (i) Pilots are licensed by the Authority. The only prerequisites for the candidate are to be a Canadian citizen aged 25 or over, to hold a certificate of competency not lower than Master of a home-trade steamship (unlimited as to tonnage) or second mate of a foreign-going steamship, and to be physically and mentally fit and of good character. Local knowledge of the District is not a requirement and there is no apprenticeship system.
- (ii) Term licences, valid for the navigation season only, are issued. A provision to that effect which was contained in subsec. 3(3) of the 1960 By-law, had been omitted in the 1961 By-law with the result that, according to the general rule, licences issued for Churchill were permanent subject to the age restriction in sec. ~~328~~³²⁸ C.S.A. The Pilotage Authority was asked to explain the reason³³⁸ and in reply, it was stated:

“It appears that when the by-law was amended in 1961 the relevant section was considered to be unnecessary since the pilots are appointed by virtue of their positions as Port Wardens.

However, I see flaws in this argument and we will arrange to reinsert the section at the appropriate time”. (Ex. 1471(m)).

As indicated, the correction was made shortly afterwards when the existing General By-law was confirmed August 24, 1966.

¹ Through a clerical error the penultimate word of the definition of vessel, i.e., “not” was omitted in the 1966 By-law.

- (iii) The dues collected belong to the pilots in equal shares on the basis of days available for duty, the pool being kept by the Authority.
- (iv) All pilotage dues take the form of a flat uniform rate. The charge for each pilotage either inward or outward is \$55 (raised to \$60 in 1967) applicable to all ships irrespective of their size. In addition, there is a pilot boat fee of \$25 which is to be paid to the National Harbours Board when its boat is used for that purpose. The move-
age charge is \$40.

Because the Pilotage Authority has not made the necessary regulations, it does not have, *inter alia*, any power “for ensuring their (the pilots’) good conduct on board ship and ashore and their duty on board and on shore”, or to regulate their number, or to retire before the expiration of his licence a pilot who has become mentally or physically unfit, or to make the dues payable to the Pilotage Authority.

2. HISTORY OF LEGISLATION

PREAMBLE

(a) *Historical Background (1610-1931)*

Manitoba is the only prairie province with a deep-sea port. Unlike other pilotage Districts in Canada, Churchill is of comparatively recent creation having been established in 1933.

The Hudson’s Bay Company’s association with Churchill and the latter’s development into a commercial seaport are generally well known. The following is a brief sketch of historical and more modern events that led to, inspired and then created the port of Churchill.

Churchill is situated at the mouth of the Churchill River which flows into Hudson Bay some 980 miles from the entrance to Hudson Strait which Captain Henry Hudson entered on August 3, 1610, in his search for a northwest passage and which now bears his name.

The tragic story of the casting adrift of Henry Hudson and a few sick sailors by his mutinous crew in the spring of 1611, never to be heard of again, and descriptions of his adventures and discoveries and those of other explorers that followed him, are matters of record.

On September 7, 1619, the Danish Captain Jens Munk, also in search of a northwest passage, came to Churchill River and established his winter quarters at the mouth. With Captain Munk were a chaplain and 64 men. Sickness overtook them and only Captain Munk and two men survived. They left Churchill on July 16, 1620, in their small ship the *Lampren* and reached Denmark on September 25 of the same year.

Eleven years later, in 1631, Captain Luke Foxe in the ship *Charles* and Captain Thomas James in the *Henrietta Maria* arrived on the scene and established their headquarters at Churchill from where they shipped furs to England.

A significant development in the history of the Bay was the result of journeys made by two French fur-trading adventurers, Radisson and Chouart, who are said to have reached Hudson Bay overland from Canada in 1662, to find the area rich in furs. Receiving little encouragement from France, Radisson and another Frenchman, named Groseilliers, succeeded in persuading English noblemen and merchants of the importance of their discoveries. Subsequently, a vessel was sent into the Bay in 1668 to trade in furs. This venture was attended by such success that on May 2, 1670, King Charles II of England granted a charter of incorporation to "The Governor and Company of Adventurers of England Trading into Hudson Bay". The Hudson's Bay Company was thus formed with Prince Rupert as its first Governor. The royal charter gave the company rights over the entire drainage basin of Hudson Bay, or Rupert's Land as it was later called. This territory extended to the Rocky Mountains in the west and south to what are now the western states of the U.S.A. For over 200 years, the Hudson's Bay Company exercised its monopoly despite opposition from home and foreign sources.

In 1685, Lord John Churchill, later the famous Duke of Marlborough, was elected Governor of the Hudson's Bay Company. In that year, the first outbound shipment of whale oil consisting of 38 casks left Churchill. In 1686, the small settlement known as Munk's Harbour, after Captain Jens Munk, as well as by several Indian names, was named Churchill and in 1689 the "Churchill Post" was founded by the Hudson's Bay Company.

Over two centuries later, the growing importance of Canada's commerce and overseas trade prompted active attention to the potential qualities of Churchill as a seaport to provide a shorter route for grain shipments from the southwest prairies of Canada to overseas ports. Other considerations were to establish closer federal relationships with the Eskimos and Indians, to assist national defence, and to develop the northeastern Arctic. The Government approved this development and a railway line was laid to link Churchill with The Pas.

On March 29, 1929, the Hudson Bay Railway was completed with Churchill as its northern terminal. In the meantime, the construction of the harbour, wharves, grain elevator and port facilities was nearing completion.

Churchill was opened as a commercial port in September, 1931. At that time and for the next few years, the maintenance and operation of the port was conducted through the Federal Department of Railways and Canals.

(b) *Initial Stage, 1931-32*

The opening of the port of Churchill in 1931 was marked by the arrival of two ocean-going ships which subsequently sailed loaded with grain. At

that time, the harbour was supervised by Mr. D. W. McLachlan, the Engineer-in-charge. During the initial two years of the port's operation, the piloting of ships, inwards and outwards, was arranged by Mr. McLachlan by employing Captain Pentz, a Master of one of the port construction tugs, who was well acquainted with the harbour, its tides and currents, to act as pilot without a licence. There appears to be no record of the pilotage charges, if any, that were levied for these services.

(c) Period 1933-1937

By Order in Council P.C. 1250 dated June 28, 1933, (Ex. 1471(c)), the port of Churchill was proclaimed a public harbour, its limits were defined, and Mr. George Kydd, Resident Engineer of the Department of Railways and Canals at Churchill, was appointed Harbour Master without remuneration.

The Pilotage District of Churchill was established by Order in Council P.C. 1416 dated July 13, 1933, its limits were defined and the Minister of Marine was appointed Pilotage Authority. The limits of the District were defined by the same wording as those used in P.C. 1250, defining the limits of the Public Harbour since which time both have remained unchanged.

Order in Council P.C. 1546, dated August 1, 1933, confirmed the first By-law for the District (Ex. 1471(a)). It provided for the appointment of the Superintendent as the local representative of the Authority, but no delegation of powers was made to him except for safeguarding the pilotage dues which, when collected by the Collector of Customs, had to be deposited in a bank account in the name of the Superintendent. It was not stated how the pilotage revenues were to be disposed of. The deficiency was soon realized and in 1934 a new By-law was added by P.C. 534, dated March, 1934, which provided that the dues could be expended "as the Pilotage Authority directs to defray the costs of supplying and maintaining a pilot boat or boats, or for any other purpose of the pilotage district". This was a blanket authority for the Pilotage Authority to dispose of the pilotage money. It was approved by the Governor in Council but the authority for such approval is not qualified except, as stated earlier, "under the provision of the Canada Shipping Act, chapter 186 R.S.C. 1927". Its legality is open to question.

The dues inward or outward were a flat rate of \$50, no provision being made for pilot boat service. This is the extent of the provisions of the 1933 and 1934 By-laws.

The Department of Railways and Canals used its tugboats as pilot boats and assigned its tugmasters to provide pilotage service. Therefore, all pilotage dues collected were paid out by the Pilotage Authority to the Department of Railways and Canals (Ex. 1471(f)).

This system of pilotage and disposing of pilotage revenues was continued in 1934, 1935 and 1936. In 1937, the Port of Churchill was transferred to the National Harbours Board, and for that year the pilotage fees

collected were "remitted to the National Harbours Board, which Board pays the wages of the pilots and operates the boats necessary for pilotage service" (Ex. 1471(f)).

Arrivals and departures of ocean-going vessels piloted during the season of navigation (about three months) in the years 1933, 1934, 1935 and 1936, including their average net tonnage and pilotage revenue (Ex. 614(a)) were:

Year	No. of ships	Average Net Tonnage	Pilotage Revenue
1933.....	12	3,015	\$1,200.00
1934.....	15	3,055	1,500.00
1935.....	9	3,235	900.00
1936.....	15	3,443	1,500.00

(d) *Period 1937-1964*

By section (d) of Order in Council P.C. 397 dated February 7, 1937, the Public Harbour of Churchill including all the waters of Hudson Bay and the Churchill River within the boundaries as established by Order in Council P.C. 1250 dated June 28, 1933 (previously referred to) was transferred to the National Harbours Board for administration, management and control, effective January 1, 1937. In July of that year the Harbour Master, Mr. W. R. Meadows, an appointee of the National Harbours Board, was appointed Acting Superintendent of Pilots in lieu of Mr. George Kydd. When his appointment lapsed, he was not replaced and the office of Superintendent of Pilots has since been deleted from the By-law.

For the next twenty years the same pilotage system was continued and the total pilotage dues were transferred to the National Harbours Board. In the early 1940's and in the years to follow, the Port Warden was issued with a temporary licence, to act as pilot, when required, in addition to the tugboat captains who were employees of the National Harbours Board. In 1957, arrangements were made between the National Harbours Board and the Pilotage Authority whereby the Port Warden and/or Deputy Port Warden received the pilotage dues for piloting ships, less the charges for the use of the pilot vessel, i.e., \$25 or \$15 for each service depending on the vessel used, which were paid to the National Harbours Board (Ex. 1471(e)).

There were no further changes in the By-law until it was revoked in 1960 by Order in Council P.C. 1960-873 which substituted a new General By-law (Ex. 1471(d)).

Its provisions were substantially the same as the By-law now in force except for two points:

- (a) The tariffs, although at a flat rate, varied depending whether the assignment was completed by daylight or not, being \$65 for a daylight assignment and \$90 otherwise.
- (b) The dues, less the pilot boat charges, were not pooled but belonged to the pilot who performed the service. He collected and retained them.

The following year this General By-law was abrogated and replaced by Order in Council P.C. 1961-1799 dated December 14, 1961 (Ex. 611). It was similar to the present P.C. which replaced it with three exceptions: (a) the duration of the licence was deleted; (b) the pilot boat charge was not separate; (c) the dues consisted of an aggregate charge of \$80 of which \$25 had to be paid to the National Harbours Board whenever one of its tugs was used "to embark or disembark a pilot outside the harbour". This restriction "outside the harbour" was removed in the 1966 By-law.

Chapter B

BRIEFS

No briefs were presented but on October 29, 1963, Captain C.H.R. Mundy and Captain E.S. Wagner called on the Commission at Ottawa and left a copy of a memorandum they had just submitted to the Pilotage Authority (Ex. 614(A)). They stressed that the introduction of 24-hour pilotage service had increased their burdens and recommended:-

- (a) more office staff;
- (b) an increase in the tariff;
- (c) a new method of computing pilotage fees on either net or gross tonnage.

Chapter C

EVIDENCE

1. GENERAL DESCRIPTION

(1) DISTRICT LIMITS

The limits of the District, which correspond to the limits of the Harbour (P.C. 1250, June 28, 1933 (Ex. 1471(c))), were defined in P.C. 1416 dated July 13, 1933, which established the service. In short, the District consists of the navigable portion of Churchill River, i.e., where the harbour lies, plus an area which extends five miles from the river's mouth into Hudson Bay.

(2) PHYSICAL FEATURES

The Port of Churchill, situated at the entrance to Churchill River, has the shortest season of navigation of any seaport in Canada. It generally opens about the third week in July and closes about the third week in October. Fresh water ice forms up the river which passes out through the harbour and its appearance may be expected any time after the middle of October.

The population of 1,900 consists almost entirely of officials and workmen, who are engaged in the operation of the port, and their families (Ex. 609A).

The earliest date on which a merchant ship, subject to additional minimum marine insurance premiums, is allowed to pass Cape Chidley at the entrance to Hudson Strait, when bound for Churchill, is July 23, provided the Canadian Government Coast Guard patrol vessel advises the Master that ice conditions are such that it is safe to do so (Ex. 609). However, the Department of Transport neither gives nor withholds permission for vessels to enter Hudson Strait (Ex. 610, p. 24).

(a) *Ice in Hudson Strait*

Ice in this area comes from three sources: (a) Baffin Bay or Arctic ice, consisting of floes, bergs and growlers, or very small bergs, which are the most formidable dangers to navigation. Some enter the Strait through Gabriel Strait and some south of Resolution Island. This ice drifts westward in the

Strait helped by easterly winds and currents. Icebergs may be met with anywhere between Resolution Island and 290 miles westward to Charles Island (Ex. 609, p. 12). (b) Foxe Channel, some 480 miles west of Resolution Island, where ice is created locally and forms large floes. (c) "Winter ice" formed locally in small bays along the shores of the Strait, gradually creating a broad coastal ice belt which breaks up in June. The central part of the Strait does not freeze over but for about eight months of the year it is rendered practically impassable by great ice floes carried back and forth by the tidal currents.

(b) Ice in Hudson Bay

For the most part, the ice in Hudson Bay is winter ice, formed locally. It generally forms along the shore and in bays early in November and closes the mouths of rivers by the end of that month. In general, the ice develops a thickness of from three to four feet and extends off the east shore for 60 to 70 miles reaching out to the islands in that area, and in the remainder of the bay it extends from one to five miles.

During the winter the shore ice is broken by gales into large floes which frequently form "rafted ice" or sheet piled upon sheet by force of contact between large floes and forming ice 20 to 30 feet in thickness.

Winter ice disintegrates about the end of June but "rafted ice" remains in the southern part of the bay until the end of July. "However, it is not likely to interfere with the steamer's track to Churchill" (Ex. 609).

The foregoing ice conditions vary from year to year depending on the severity of the winter, summer temperatures, and general weather conditions.

(3) MARITIME TRAFFIC

Maritime traffic to and from Churchill consists mostly of foreign-going vessels engaged primarily in the export of grain to overseas destinations, some coastal vessels, including oil tankers, trading to and from Canadian maritime ports, and small local craft. Churchill is the chief distributing centre of the Hudson's Bay Company for its posts in Hudson Bay and vicinity, and the small local vessels are generally used for that purpose.

From 1956 to 1963 inclusive, the annual number of arrivals and departures of ocean-going and coastal ships remained fairly constant, but since 1963 their number has declined. The following table provided by the Dominion Bureau of Statistics shows their annual number during each short season, including their total net registered tonnage, and the average tonnage per ship (Ex. 1471 (g)).

Year	Ocean-going			Coastal (250 N.R.T. and Over)		
	No. of Ships	Total N.R.T.	Average N.R.T.	No. of Ships	Total N.R.T.	Average N.R.T.
1956.....	49	177,127	3,615	12	6,144	512
1957.....	48	189,302	3,944	3	1,682	961
1958.....	58	225,993	4,414	14	21,146	1,510
1959.....	60	254,638	4,244	16	22,600	1,413
1960.....	50	236,024	4,720	7	8,164	1,166
1961.....	53	236,103	4,455	17	22,583	1,328
1962.....	52	271,215	5,216	13	20,531	1,579
1963.....	51	290,887	5,704	8	16,483	2,060
1964.....	43	268,999	6,256	8	13,050	1,631
1965.....	46	289,812	6,300	7	4,576	654
1966.....	41	250,180	6,254	11	18,825	1,717
1967.....	35	240,288	6,865	7	9,947	1,421

Although there were 14 fewer ocean-going vessels in 1967 than in 1956, their average net tonnage had increased in 1967 by 90% as compared with 1956. The average net tonnage of coastal vessels had also increased by 181%. This growing trend to larger vessels illustrates the need for dredging to improve the channel and widen the turning basin off the wharf.

Between the years 1956 and 1967, exports and imports show a progressive increase as shown by figures provided by the Dominion Bureau of Statistics.

Year	Commodity	*Exports (Short tons)	*Imports (Short tons)
1956.....	Wheat	496,200	—
	General Cargo	—	5,524
1967.....	Wheat	619,675	—
	Fuel Oil	—	17,096
	Nickel and Alloys	4,395	—
	Structural Steel	—	2,664
	General Cargo	272	3,257

*Imports of general cargo remain fairly constant but, in addition to the export of grain, etc., several shipments of nickel and copper ores and concentrates are made overseas, as well as sulphur. Coastwise, bulk oil is imported and stored at Churchill and trans-shipped in tankers chartered by the Department of Transport, for delivery to several small ports or stations in the Hudson Bay area. There are also occasional shipments of pulpwood.

The foregoing figures are indicative of the port's economic progress and the pilots' important role in the expeditious and safe transit of ships.

(4) CHURCHILL HARBOUR

The commercial seaport of Churchill and its Pilotage District are the only ones of their kind within the vast expanse of the inland sea which penetrates deeply into the northeastern portion of the North American continent. Hudson Bay is almost completely landlocked and is joined to the Atlantic Ocean on the east by Hudson Strait and to the Arctic Ocean on the north by Foxe Channel and narrow straits. Its greatest length between extreme latitudes is 930 miles and its greatest width 520 miles in latitude 60° North (Ex. 609).

Churchill is so isolated and remote that it is unique among Canadian Pilotage Districts. Ice in its various forms is the greatest navigational hazard and the pilots appreciate the serious consequences of an accident because the nearest repair facilities are 2,000 miles away at St. John's, Newfoundland.

The Government wharf at Churchill has a frontage of 3,065 feet and accommodation for six vessels of which three can be loaded with grain simultaneously. Two berths are for general cargo and one for coastal vessels. (Ex. 609A). In 1963, there was a depth of 30 feet alongside except at the northern and southern ends where the limiting depths were 27 and 24 feet respectively.

The harbour is protected by natural breakwaters consisting of eastern and western rocky peninsulas with cliffs 50 feet high, or more in places, tapering to blunt points at their northern extremities enclosing a harbour six miles in length, and from 1 to 2½ miles in width at low water. The port of Churchill is situated along the eastern peninsula.

The entrance to the harbour is through a narrow gap between the northern headlands with a low water width of 1,000 feet and ranging from 30 to 60 feet or more in depth.

The entrance channel which leads in a southwesterly direction has a least depth of 33 feet in the approaches and a width of over 1,000 feet. This channel with depths of from 30 to 60 feet occupies the middle of the harbour for about three-quarters of a mile, beyond which the depth decreases rapidly (Ex. 609).

In the southern part of the entrance channel an anchorage area is shown on chart No. 5418 (Ex. 605), but a witness stated that it is used by small local vessels only since the area is not large enough to handle large ships 500 feet in length.

From the southeastern side of the entrance channel, a mile long dredged channel with a width of 600 feet at its narrowest and a limiting depth of 22 feet at low water leads to the wharf at Churchill a distance of one and a half miles from the harbour entrance.

The Churchill River freezes to the bottom during the winter and considerable quantities of boulders and mud are carried into the harbour when the ice breaks up. The harbour must be swept every year to maintain the

charted depths. Re-dredging, made necessary by larger and longer vessels using the harbour, is being done to widen the turning basin opposite the wharf from 600 to 800 feet. Also the limiting depth of the approach channel is being dredged to 28 feet.

Eight miles south from the harbour entrance the river is three-quarters of a mile wide. From here the estuary extending northward widens to nearly $3\frac{1}{2}$ miles, contracting to about half a mile at its outlet between the rocky headlands.

Spring tides rise 14 to 17 feet and mean neaps rise $2\frac{1}{4}$ feet. The duration of the rise of tide is 6 hours and 25 minutes and of the fall of tide 6 hours. The ebb stream at the entrance to the harbour attains a normal rate of about 5 knots and the flood stream about 2 knots. Ebb tides create a counter current of about one knot which flows along each shore to the southward of Cape Merry.

Pilot E. S. Wagner stated that the rate of the ebb tide current at the entrance to the harbour varies with the direction and force of the wind. With a southerly wind it reaches a maximum of approximately 5 knots. This current creates difficulties when entering the harbour according to the prevailing conditions. Full speed may have to be used to keep control of the ship and there is always the possibility of engine failure. However, there is no difficulty taking the way off the ship when stemming an ebb tide. But against such a tide a ship with a full speed of only 10 knots presents difficulties when turning to port from the entrance channel to enter the approach dredged channel to the wharf. Near accidents have occurred but no serious ones. There have been occasions when ships struck the wharf but without serious damage (See Shipping Casualties, Accidents and Incidents). Pilot C. H. R. Mundy stated that they are very conscious of the fact that the nearest dry dock or major repair depot is some 2,000 miles away and they cannot afford to take risks.

Large ships entering the harbour to load grain usually do so during ebb tide and secure port side to the wharf. However, as soon as possible, i.e., when the tide slackens, they are turned around with the aid of tugs, and secured starboard side to. This is done to avoid turning these large ships after they have been loaded. As previously mentioned the turning basin off the wharf is in the process of being widened, but in the meantime difficulty would be encountered turning a deeply laden ship in the present confined space, preparatory to her departure.

Smaller ships also usually enter the harbour during ebb tide and secure port side to the wharf, but they invariably stay in that position until they depart.

Departure time for all ships is during flood tide, usually about two hours before high water. Thus, generally, ships when entering or leaving the harbour stem the tide and are thereby more easily controlled, although on occasion ships are brought in on the flood tide.

Due to the strong ebb tide all ships must be very securely tied to the wharf and some use their anchor cable for this purpose.

In the majority of cases it takes the pilot about an hour or an hour and a half to pilot a vessel in from the sea fairway buoy to the wharf but this depends on circumstances, the state of tide, the speed of the ship and the weather.

Sometimes it has taken two and a half hours, and on one occasion only fifteen minutes to pilot in a Department of Transport vessel that was boarded just outside the harbour entrance.

The only gales that affect the harbour are those from the northeast which create choppy seas for a short distance inside the entrance. The prevailing winds are from the northwest and the eastern shore is calm at all times.

There is remarkably little fog at Churchill and Pilot Wagner stated that he remembers only one occasion when he was delayed by dense fog.

(5) AIDS TO NAVIGATION

Each year about the middle of July the Department of Transport opens an Ice Operations Office at Churchill. Here, the Ice Operations Officer provides advice and assistance for the benefit of commercial shipping (Ex. 610(a)).

The Meteorological Branch of the Department of Transport operates ice reconnaissance aircraft from Churchill and Frobisher Bay. From such observations, ice information bulletins, broadcast from the principal marine radio stations, are issued throughout the season of navigation for the guidance of shipping.

In areas where heavy concentrations of ice may retard the progress of shipping, the Canadian Coast Guard's powerful ice-breakers are made available for ready assistance and on occasion lead and escort small convoys of ships through such ice.

Since the almost universal adoption by ships of modern navigational instruments, such as the gyro compass, radar and direction finding instruments, which enable them to establish their position by a chain of wireless stations and some radio-beacons, navigation of the Hudson Bay route is not intricate. The route is wide, remarkably free from shoals and the 900-mile stretch from the eastern entrance of Hudson Strait to a position off Churchill Harbour can be made using four compass courses.

Churchill Harbour is well defined; it is approached from the northward or northeastward. The white, square grain elevator on the eastern shore of the harbour is visible on a clear day for a distance of 20 miles. Other conspicuous objects are the black flat-topped ruins of Fort Prince of Wales on the western side of the harbour, and the radio masts eastward of the grain elevator through which ships send their E.T.A.'s and can verify their position

by direction finder. A beacon on Eskimo Point with an elevation of 62 feet at the northern approach to the harbour is also conspicuous.

The pilot is embarked within the District limits in the vicinity of the fairway buoy—a lighted bell buoy—four miles northeast of the harbour entrance from where leading range lights situated on the western peninsula guide the vessel through the harbour entrance. A lighted bell buoy marks Merry Rock to port, and 1,500 feet westward a lighted buoy marks the turning point to the channel entrance that leads to the wharf. In making this sharp turn to port two sets of lighted range lights situated on the western peninsula give guidance through the centre of the channel marked by four lighted buoys.

At the time of the Commission's hearing at Churchill on August 1, 1963, the chart of Churchill Harbour No. 5418 (Ex. 605) issued by the Canadian Hydrographic Service under date of July 12, 1963, did not indicate the two sets of lighted range lights for channel guidance, or the change in buoyage from spar buoys to lighted buoys, or new dredged areas and wharf extension. These changes were marked on the chart in red by witness Mr. T. A. Lauzon, Resident Engineer.

The distribution by the Hydrographic Service of an uncorrected chart is explained by the fact that the new range lights had only recently been installed and the buoys changed. These new aids were used for the first time when the navigation season opened July 15, 1963. The National Harbours Board at Churchill, acting on behalf of the Aids to Navigation Division of the Department of Transport, installs and maintains all aids in the harbour. Time had not permitted these important changes to be reported to Ottawa, to have the chart corrections made and the necessary Notice to Mariners issued before the Commission's hearing. This delay is also indicative of the isolation and remoteness of Churchill previously referred to. The Dominion Hydrographer, Mr. H. E. Gray, gave immediate instructions for the necessary chart corrections and a Notice to Mariners, No. 645, as well as a chart patch showing all corrections, was issued August 16, 1963, i.e., fifteen days after the Commission's hearing. Mr. Gray also requested the Commission to stress to all concerned the importance of informing the Canadian Hydrographic Service immediately of any changes and thus assisting in the monumental task of maintaining some 850 charts covering over 100,000 miles of coastline (the longest in the world) in addition to inland waterways, and issuing about 25 new charts a year (Ex. 605).

Pilot Wagner stated that the navigational aids in the harbour were generally very good with the exception of the most important buoy that marks the turn into the dredged approach channel. This was the wrong type of buoy, its light was not burning and the buoy became submerged by the force of the current when only a ripple of water indicated its position. However, the Commission received information from the Aids to Navigation

Division of the Department of Transport that later in the season of 1963 this buoy was replaced by a new cylindrical standard buoy, especially constructed for severe current conditions, which was reported to be working satisfactorily.

The establishment of lighted buoys and range leading lights in 1963 introduced night navigation and night pilotage at Churchill for the first time (Ex. 610(a), Annual Report 1963, p. 3(f) para. 7)(^g)

2. NATURE OF PILOTAGE SERVICE

(1) NATURE OF THE SERVICE

Pilotage at Churchill is seasonal and operative for approximately three months in the year, i.e., from the last week in July to the last week in October. It is not a full-time occupation and is conducted by the Port Warden and Deputy Port Warden under the unofficial direction of the Port Manager, who acts as Harbour Master and is responsible for all movements of ships within the harbour limits.

The duties of the pilots are confined to the pilotage of ships inwards and outwards, including berthing, unberthing and movages inside the harbour with the assistance of one or two tugs. They perform no coastal pilotage.

Since Churchill is located in latitude 58° 48' North, the summer season is short but twilight is long.

(2) EXEMPTIONS

Exemptions from the compulsory payment of pilotage dues are as defined in sec. 346 of the Canada Shipping Act. However, as subsec. (c) of sec. 346 has not been taken advantage of, all vessels of 250 registered tons and under, not registered in any of Her Majesty's Dominions, are not exempt. This situation will be rectified if the Commission's General Recommendation 22 (Part I, p. 532) is implemented.

Shipping statistics and records indicate that, with the exception of small craft, all ocean-going and coastal vessels employ the services of a pilot, including occasional vessels that are exempt, depending on the Master's knowledge of the harbour and the prevailing weather conditions.

3. ORGANIZATION

(1) PILOTAGE AUTHORITY

The Minister of Transport as the Pilotage Authority for the District of Churchill issues the pilots' licences, and maintains control of the District. The governing legislation P.C. 1416 dated July 13, 1933, does not explain why the Minister of Transport was appointed Pilotage Authority instead of a

local commission, although sec. 327 C.S.A. makes it a condition that such an appointment should appear to the Governor in Council "to be in the interest of navigation". Contemporaneous events as well as Churchill's location indicate that under the circumstances this was the best solution both to achieve efficiency and to effect economy.

Unlike most Pilotage Districts in Canada, Churchill's operative and administrative problems are few (they are reviewed later).

By virtue of the dual occupation of the two pilots which includes the duties of Port and Deputy Port Warden, the operation of the District falls within the ambit of Port Management, for which there are no operational expenses, other than for the use of the pilot vessel service. The pilots work in harmony with the Port Manager, who is also the Harbour Master and as such controls the movement of ships in the harbour.

At the time of the establishment of the District in 1933, the then Resident Engineer, who was also Harbour Master, was appointed Acting Superintendent of Pilots. This officer supervised pilotage and made annual reports to the Authority on its activities. The appointment was continued by his successor but was allowed to lapse when the Port Warden took over pilotage duties. According to the evidence of Pilot Mundy (the Port Warden in 1963) he looks after all the books, logbook, and account book and also submits the annual report to the Authority.

There have been no cases of inebriation affecting the pilots nor has any case arisen that has called for disciplinary action against them.

4. PILOTS

(1) RECRUITING AND QUALIFICATIONS

Since 1957, pilots for Churchill have been obtained by open competition as advertised by the Civil Service Commission on behalf of the Department of Transport for the employment of nautical officers to fulfil the duties of Port Warden or Deputy Port Warden. The basic qualification is possession of a foreign-going Master's certificate (Ex. 1471(k)). These qualifications are superior to those specified in the By-law for pilots of the District. The harbour is provided with adequate aids to navigation and its hazards are not such that long training and special skills are necessary. This is illustrated by the fact that local knowledge is not listed in the By-law as a prerequisite for pilots to obtain a licence at Churchill. Experience has shown that the necessary local knowledge can be readily acquired by a competent, qualified mariner.

The appointment as pilot, in addition to that of Warden, is permissible by authority of Section 608A(4) of the Canada Shipping Act. Appointments are made each year for the season of operation and temporary pilots' licences are issued, without examination, for the season of navigation only.

The evidence reveals that the pilots at Churchill were carefully selected by the Authority. That they are qualified, skilful and reliable is borne out by an unblemished record of no major casualty since the port opened. The service runs smoothly and efficiently.

In his evidence Captain F. S. Slocombe of the Department of Transport stated that they had been fortunate in having Captain Mundy and Captain Wagner¹ for some years, because it is important to have experienced men familiar with the tides and currents that prevail in Churchill Harbour but if such officers were not readily available they could send replacements from Ottawa headquarters. The Pilotage Authority had thought of providing experienced pilots from other Districts, such as Halifax and Saint John, N.B., during the summer months when they are not as busy as during the winter but there would be complications with regard to pension funds and other difficulties and the reaction of the pilots to such a proposal would have to be sought.

Above all other qualifications, pilots for the District must be able to exercise good seamanship and skill in the handling of vessels, large or small, in a confined area. Strong tides accompanied by currents and cross currents created by the outflowing river make the manoeuvring and navigation of vessels both difficult and hazardous for those unacquainted with local conditions.

A serious accident in the narrow approach channel to the wharf might well block traffic. Also any accident, which might be of minor importance in other Districts, could be of serious consequence at Churchill because of its remoteness from repair yards and facilities. The fact that there have been no major casualties merely emphasizes that there might have been if thoroughly competent pilots had not been in charge of navigation because it is known that a number of accidents were narrowly avoided in the past and it is logical to assume that serious accidents might have occurred unless persons thoroughly acquainted with local features and conditions were in charge of navigation. In the public interest it is also essential that maximum use be made of all harbour facilities and aids during the short season of navigation.

(2) STATUS OF PILOTS

The status of the two pilots under the District General By-law is unique. They are compelled to work as free entrepreneurs and are self-employed in a compulsory partnership, but they are not subject to any regulations concerning their attendance to duty, their conduct or behaviour. There is nothing in the By-law to oblige them to offer their services to incoming vessels and once licensed they are not responsible to any authority. This

¹ Captain R. R. Burbridge replaced Captain E. S. Wagner as Deputy Port Warden at the opening of navigation in 1964, and has since served there as well as Captain C. H. R. Mundy, the Port Warden, each season up to the present.

freedom is only apparent because they are, in fact, officials of the Department of Transport and one of their terms of employment as port wardens is that they perform additional duties as pilots in an efficient manner.

Therefore, the legal situation and the factual situation do not correspond. In practice, this does not have an adverse effect on the service. There are only two pilots, the workload is not excessive and, on account of the other circumstances of their employment, they are interested in sharing pilotage assignments equally. Because they are paid on the basis of availability they have an incentive to be ready for duty at all times. However, the existing legal situation is fraught with difficulties and should be rectified.

In view of Churchill's unique situation, its remoteness, the short duration of its navigation season and its limited maritime traffic, it appears financially necessary to employ pilots that are also employed in some additional official capacity in order to provide them with an adequate aggregate remuneration. However, such extraneous occupations should not interfere with the efficiency of pilotage operations, nor should they have the effect of submitting the pilotage service to an authority other than its Pilotage Authority. Vessels should never be kept waiting because the pilots' time is occupied by duties other than pilotage.

As in other Districts where the Minister is the Pilotage authority, the ideal situation would be to have the pilots' time solely devoted to the profession of pilotage. At the present time, two pilots are necessary to provide an efficient service. One could not effectively do so. He would have an average of two assignments every twenty-four hours, staggered unevenly during the day and night throughout the 82 to 85 days of the season of navigation, and without reasonable rest periods. Such an arrangement would cause delays while awaiting the convenience of the pilot and at the expense and inconvenience of shipping. A prolonged absence due to illness or accident can be anticipated, and in order to render the required service, it will be necessary to continue to provide two pilots.

In view of the special conditions that prevail at Churchill, its remoteness and short season of navigation, a pilotage system based on truly self-employed pilots, the only one permissible under the present law, could not provide an equitable or efficient service.

Since the exigencies of pilotage render outside employment at Churchill almost impossible and too uncertain to attract qualified mariners as pilots, it will be impossible to maintain the pilotage service that Churchill needs, unless the necessary aid is provided by the Government or a Crown agency.

This poses the question of the duality of authority over the pilots (unless financial assistance is given in the form of direct subsidies which should be granted only as a last resort). A solution has now been found by making them Port Warden and Deputy Port Warden, i.e., employment that leaves them available for pilotage service as required and provides additional

remuneration. One of the problems that remains is that the Deputy Port Warden is subordinate to the Port Warden. From 1958 to 1960, this resulted in the Port Warden prohibiting his Deputy from taking pilotage assignments, thus obtaining all the pilotage earnings himself. This inequitable treatment was partly corrected by the 1961 By-law which provided for the pooling of pilotage earnings with equal shares for equal availability for pilotage service but this is only a superficial solution. There is still no way of ensuring equitable sharing of the workload.

To promote an efficient service, conditions of work and remuneration should be sufficient to attract from outside qualified mariners (there are none locally) and to retain them. This is beyond the powers of the Pilotage Authority and, under Part VI of the Act, neither the Department of Transport nor the National Harbours Board is obliged (or even supposed) to assist the Pilotage Authority. The conclusion is that Churchill presents a special problem that can not be solved under the Canada Shipping Act. This situation will be effectively remedied if the Commission's General Recommendations (Part I, C. 11) are implemented, whereby the application of pilotage legislation is extended to every possible status of pilots and the Pilotage Authority is authorized to manage and provide the service. The Pilotage Authority, with the assistance of the Central Authority, will then be in a position to provide a legal and adequate solution to the pilots' financial problem.

Pilot C.H.R. Mundy has proposed a retaining fee if it is important to the Pilotage Authority to have the same men return each season. It should also consider salary on a twelve-month basis, in which event they would not seek employment elsewhere during the winter months, but would hope that the Department would find employment for them.

Of the several plans that might be adopted, prevailing circumstances will determine which is most applicable. They include:

- (a) The method now used, i.e., to employ the pilots in an additional official capacity, provided such other occupation leaves them the necessary freedom of action to permit them to attend freely and effectively to their pilotage duties. The right to a pilot's licence should not, however, be made conditional on holding such a position because this would jeopardize the autonomy of the Pilotage Authority. If this can not be achieved, other methods should be considered.
- (b) The pilots might be Government employees in any capacity or field, if qualified mariners, but a condition of employment would be to pilot at Churchill during its short navigation season. In such a case, holding a Churchill pilot's licence would also be a condition of

employment. This method has the advantage of providing the pilots with job security and assuring them an adequate annual remuneration while, at the same time, benefiting the service by ensuring the return from year to year of the same pilots with higher qualifications gained by previous service.

- (c) Another method would be to make use of the services of pilots of Districts whose slack season corresponds with the Churchill season, e.g., pilots from the St. John (N.B.) and Halifax Districts, or of other Districts where the number of available pilots exceeds actual requirements. As stated earlier, pilotage at Churchill does not present any serious difficulties that can not be easily overcome by an experienced pilot of another District after a short period of training in Churchill waters. This would appear to be the most attractive method from the point of view of ensuring the efficiency and quality of pilotage at Churchill because the service will be performed by pilots whose sole, permanent and uninterrupted occupation is pilotage. The practical objections that previously existed could be easily overcome in a pilotage service which is nationally controlled and where financial assistance, when required, is provided by the Central Authority responsible for such control (General Recommendations 16, 17, 19 and 21, Part I, C. 11).

(3) SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS

As stated by Pilot E. S. Wagner, there have been a small number of minor accidents at Churchill in which pilots were involved. Statistics (Exs. 866, ~~1457~~ and 1467) show the following cases from 1959 to 1964 inclusive:

1451

1959	Grounding; cause: engine failure.
1960	Nil
1961	(a) One grounding; cause: light ship unable to manoeuvre against high winds. (b) One collision with a berthed vessel; cause: light ship set down by wind when anchor jammed in hawse pipe.
1962	Nil
1963	Collision, while berthing, with ship moored ahead; cause: wind and failure to get lines ashore in time to stop headway.
1964	One collision, while berthing, vessel striking a moored vessel; cause: stated as current.
1965	Nil
1966	Nil
1967	Nil

5. PILOTAGE OPERATIONS

(1) PILOT VESSELS

The vessels employed to embark and disembark the pilots are two tugboats owned and operated by the National Harbours Board at Churchill.

Their main particulars are:

Name	Built	Length	Tonnage	Horsepower
M.V. <i>W.N. Twolan</i>	Lauzon, Que. 1962	95.3'	299	1,520
M.V. <i>George Kydd</i>	Owen Sound 1960	42.8'	21	600

The larger tugboat, *W. N. Twolan*, is invariably used to embark and disembark pilots to and from ocean-going vessels, while the smaller tug, *George Kydd*, is used for smaller vessels. Both assist in the berthing and unberthing of vessels.

In their evidence, both pilots claim that the *W. N. Twolan* is not suitable for embarking or disembarking pilots. She is described as a deep-sea tugboat built for several purposes, i.e., deep-sea towing, salvaging, icebreaking, harbour towage, fire boat, and air sea rescue. Her lines are fine and she has a flared bow. She has too much upper structure and rides high in the water. She is also very tender and rolls heavily in a moderate swell, which makes it most difficult to manoeuvre alongside a vessel. During fine weather there is no difficulty but when swells prevail (and they are frequent) it is very dangerous to embark or disembark. During such conditions the pilot invariably disembarks from an outbound vessel just before leaving the protection of the inside harbour. But many, and sometimes long, delays are occasioned waiting for suitable weather conditions to board a vessel outside the harbour.

The National Harbours Board was aware of the difficulties mentioned above and during the winter of 1965-66 the *W. N. Twolan* was placed in the Pictou Foundry Shipyards, N.S., to undergo refit, and for extensive modifications to improve her operational performance.

The Pilotage Authority on request from the Commission gave the following information (Ex. 1471 (1)):

"The pilot boats in Churchill have not been licensed by the Pilotage Authority in accordance with the requirements of Section 364 of the Canada Shipping Act. The boats employed for this service are the property of the National Harbours Board. They are approved by our Steamship Inspection Service and they have a valid

Steamship Certificate. This Certificate, which is issued by a branch of the Department of Transport, is considered to be sufficient evidence of their suitability as a pilot boat and the Authority has never issued a pilot boat licence."

Under *Schedule, Pilotage Tariff*, the 1961 By-law subsec. (2) stated that the sum of \$25 was to be paid each time the pilot boat was used to embark or disembark a pilot "outside the harbour". Since the boundaries of the harbour limits and the Pilotage District limits are exactly the same and extend 5 miles into Hudson Bay, it is conceivable that if this By-law had been acted upon as read there would have been very few charges for pilot boat services because the pilots disembark inside the harbour limits and only on rare occasions do they embark outside the limits, i.e., when several ships are at anchor in that area. The National Harbours Board took exception to the words "outside the harbour" and by mutual understanding and in contravention of the letter of the By-law, the \$25 fee was paid on each occasion the pilot boat was used for the purpose defined (Ex. 1471 (1)). This situation was corrected in the 1966 By-law by the deletion of this restrictive expression.

(2) TELECOMMUNICATIONS

According to Captain C. H. R. Mundy's evidence, long delays had been occasioned obtaining the E. T. A. of vessels due to the faulty procedure of the operators of the Churchill Radio Station, and their lack of direct communication between the station and the port officials, especially at night time. Early knowledge of the E.T.A. of a vessel was essential to avoid unnecessary delays in the pilot meeting the ship and the ordering of linesmen and stevedores, etc. On occasion, messages from ships, in reply to requests for their E.T.A., were sent by the Radio Station to Winnipeg, and the port officials and pilots received such messages three or four hours later by C.N.R. telegram. However, since the Commission's hearing at Churchill in 1963, advice has been received that the difficulties complained of have been rectified, and direct communication with ships by radiotelephone greatly improved. As for short range communications, the tugboat *W. N. Twolan* is equipped with a V.H.F. radiotelephone and one has been installed in the Warden's (i.e., the pilots') office. Approximately 75% of ocean-going vessels, as well as most coastal vessels, are now equipped with V.H.F. radiotelephone.

(3) PILOTS' WORKLOAD

Because of the dual employment of the pilots, they arrive at Churchill prior to the arrival of the first ship and remain for a period after the departure of the last one. Captain Mundy in his evidence states that "we only

get 82 to 85 days of piloting up here". The following table, taken from the annual reports, shows the number of piloting days and pilotage assignments during the seasons of 1962-1967 inclusive:

Season	Arrival 1st ship	Departure Last Ship	No. of Piloting Days	Total Assignments
1962.....	July 26	Oct. 11	77	166 = 83 each
1963.....	July 20	Oct. 20	90	158 = 79 each
1964.....	Aug 1	Oct. 12	72	140 = 70 each
1965.....	July 25	Oct. 15	82	152 = 76 each
1966.....	July 26	Oct. 15	81	117 = 58½ each
1967.....	July 29	Oct. 21	84	111 = 55½ each

Captain Mundy states that each pilot performs an equal number of assignments. Relating these assignments to the number of piloting days indicates an average of approximately one assignment per pilot per day. According to the evidence of Captain Wagner, the majority of inward assignments, which include berthing, take about 1½ hours but may take 2½ hours. Other assignments, i.e., outward trips and harbour movages, may take less time but vary in accordance with circumstances and prevailing weather conditions. However, two or more ships may arrive and/or depart on the same day when the pilots may be called upon to perform two or more assignments. Having regard to the pilots' other duties as Wardens and to their night pilotage assignments, it will readily be seen that during the period from the arrival of the first ship to the departure of the last one—an average of eighty odd days—the pilots are busily engaged.

6. PILOTS' REMUNERATION AND TARIFF

At the time of the Commission's hearing at Churchill in 1963, the Port Warden's salary was at the rate of \$500 per month and the Deputy Warden's at \$450 per month. In June, 1965, the salaries of the Port Warden and the Deputy Port Warden were increased by \$50 per month, i.e., from \$500 to \$550 and \$450 to \$500 respectively, and again effective March 1, 1966, to \$585 and \$530 respectively. The Wardens' travelling expenses to and from Churchill are paid by the Department of Transport and their board and lodging, while at Churchill, are provided free, the Department of Transport assuming the cost (Ex. 1471(h)).

1959

From 1933 to 1939 inclusive, pilotage dues were at a flat rate of \$50 both inwards and outwards, but in 1960 the dues were increased, and separate charges made for day and night pilotage as follows:

- (a) When the whole passage was completed between sunrise and sunset—\$65, and
- (b) when the whole passage was completed between sunset and sunrise—\$90.

At the opening of navigation in 1964, pilotage dues were again changed to a single flat rate of \$80, both inwards and outwards, from which a deduction of \$25 was made for payment to the National Harbours Board each time their tugboat was used for embarking and disembarking a pilot (P.C. 1964-958). The 1966 By-law did not alter the total charges but segregated the pilot boat charge by providing a charge of \$55 for a pilotage trip and a charge of \$25 for pilot vessel services. The dues payable for a moveage remained at \$40. In 1967, the trip charge was raised to \$60 (P.C. 1967-1819).

Captain C.H.R. Mundy stated in his evidence that as ships become larger they decrease in numbers, and the fewer ships they pilot the less money they make. This is one of the reasons why they asked for a change in the method of assessing pilotage dues, i.e., from the present flat rate to a rate that relates to the tonnage or size of the ship, whereby increased revenue would be achieved.

The following table shows the total remuneration of the Port Warden and Deputy Port Warden, i.e., pilotage earnings plus salary during their seasonal periods at Churchill, 1958 to 1967 inclusive.

For the years 1958, 1959 and 1960 the Port Warden performed all pilotage assignments. In 1958, there was no Deputy Port Warden, but in 1959 a Deputy was appointed and this position has been maintained ever since (Ex. 1471(i)).

Year	Assignments	Pilotage Earnings	Wardens' Salary	Total	Period at Churchill
1958.....	P.W. 136	\$5,440	\$2,349	\$7,789	3 mos. 21 days
1959.....	P.W. 152	6,080	2,333	8,413	4 mos. 20 days
	D.P.W. Nil	—	1,665	1,665	3 mos. 21 days
1960.....	P.W. 135	5,825	2,300	8,125	4 mos. 18 days
	D.P.W. Nil	—	1,590	1,590	3 mos. 16 days

To permit the Deputy Port Warden to share pilotage and its earnings with the Port Warden, an amendment was made in the By-law in 1961 by

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adding subsec. (2) of sec. 5 in P.C. 1961-1799, which provided for equal shares of pilotage earnings on the basis of days available for duty. Therefore, from 1961 to 1967 inclusive, remuneration was as follows:

Year	*Assignments	Pilotage** Earnings	Wardens' Salary	Total	Period at Churchill
1961.....	P.W. 77 D.P.W. 72 *(145 trips and 4 movages)	\$3,330 3,005	\$2,367 1,980	\$5,697 4,985	4 mos. 22 days 4 mos. 12 days
1962.....	P.W. 82 D.P.W. 84 *(147 trips and 9 movages)	3,505 3,535	2,250 1,710	5,755 5,245	4 mos. 15 days 3 mos. 24 days
1963.....	P.W. 79 D.P.W. 79 *(138 trips and 20 movages)	4,135 4,085	2,083 1,860	6,218 5,945	4 mos. 5 days 4 mos. 4 days
1964.....	P.W. 70 D.P.W. 70 *(118 trips and 22 movages)	3,715 3,655	1,933 1,575	5,648 5,230	3 mos. 26 days 3 mos. 15 days
1965.....	P.W. 76 D.P.W. 76 *(119 trips and 33 movages)	3,940 3,925	2,402 1,750	6,342 5,675	4 mos. 11 days 3 mos. 15 days
1966.....	P.W. 58½ D.P.W. 58½ *(94 trips and 23 movages)	3,045 3,045	2,333 1,936	5,378 4,981	4 mos. 21½ days 3 mos. 25½ days
1967.....	P.W. 55½ D.P.W. 55½ *(84 trips and 27 movages)	2,928 2,928	2,430 1,875	5,358 4,803	4 mos. 8½ days 3 mos. 19½ days

*A trip means a pilotage assignment either inward or outward. In comparing this table with the table on page 405, which shows the number of ocean-going and coastal vessels over 250 NRT that arrived at Churchill in the years indicated, it becomes apparent that practically all vessels, including small coastal ones, use the services of the pilots.

**The slight discrepancy between the pilotage earnings of the two pilots was explained by Captain F. S. Slocombe in reply to a query from the Commission (Ex. 1471(o)). During the 1961 season, dues were paid to the pilot who performed the service and, since Captain Rose intentionally took more than his share of assignments, he received more revenue in accordance with P.C. 1960-873 which was in force at the time. The By-law was amended by P.C. 1961-1799 of December 14, 1961. In 1964, Captain Burbridge agreed that Captain Mundy should receive some recognition for instruction and the sum of \$35 was arbitrarily agreed upon. After the Annual Report was written Captain Burbridge received \$25 from D.O.T. In 1965, the final figures were adjusted after the Annual Report was received so that each pilot received \$3,945.

Whereas the Wardens are paid their salary as such each month, their earnings derived from pilotage are paid *in toto* at the close of the season, after all pilotage dues have been assessed.

Leave is neither provided for nor granted at Churchill during the short navigation season. Although the pilots are paid on the basis of availability,

there is no provision in the By-law for absence due to illness or accident. The Pilotage Authority, in reply to a request from the Commission for further information, stated:

"The shares of the pilots in the Churchill Pilotage District fund are divided in accordance with subsection (2) of Section 5 of the By-laws. We have never had any reported days of sickness since this subsection has been in effect, therefore, the matter of dealing with them has never risen. Should one of the pilots be sick and unable to do his work, he would not be considered available for duty. The purpose of the present wording of this subsection was to prevent one of the pilots from performing more of his share of the work and obtaining more than his share of the revenue. This had occurred prior to the 1961 season, but has not occurred since." (Ex. 1471 (1)).

The foregoing table of earnings shows totals covering a period of approximately four months of temporary employment in each year. During this period, the two pilots concerned are absent from their homes and families, and, although they have few expenses at Churchill, and possibly save much of their earnings, they may well have insufficient money to provide for the remaining eight months of the year. The evidence of the pilots shows that for this reason, and also because they lack assurance of job security from the Department of Transport, they must seek employment elsewhere. Thereby, the Department accepts the risk of losing qualified, experienced pilots, and of having to find replacements at short notice. The pilots proposed that this situation could be overcome if the Department of Transport would make employment available to them or, in lieu, would provide a retaining fee during their months of unemployment.

COMMENTS

The pilots have recommended that the flat rate system be abandoned in favour of the system existing in most Pilotage Districts whereby the dues are computed on both draught and tonnage. The ground for their recommendation are not to avoid a discriminatory flat rate against small vessels, to share pilotage costs equitably among the users or to fix a price proportionate to the value of their services but mainly to ensure stable pilotage earnings when fewer but larger vessels call at Churchill.

It is considered that the principle of the pilots' recommendation should be accepted, but that the reasons they advanced are not valid. The pilots have no direct interest in the distribution of charges for their services because the pilotage earnings are pooled and, hence, they are not concerned whether one vessel contributes more than another to the pool or whether they all contribute equally, provided the aggregate amount of their earnings is adequate. The best way to provide the pilots with an adequate income is either to pay them a fixed salary or, if the relationship between pilotage revenues and pilots' earnings is to be retained, to adopt the target income method. Then the rates, whatever form they take, would be fixed in such amounts that

the aggregate pilotage revenue meets the pilots' expected income, adjustments in rates being made from time to time when the actual earnings fall substantially short of, or substantially exceed, the established target (Part I, C. 6, pp. 143 and ff.).

For the reasons advanced in Part I, C. 6, pp. 157-159, it is considered that the flat rate system should be replaced by a variable rate system which shares equitably among the users the total cost of the pilotage service.

For the reasons advanced on page 350, Section Two, New Westminster District, it is considered that draught should not be made a component of the rates.

The rates for both pilotage voyages and movages should be based on tonnage alone, using the vessel's maximum gross tonnage (p. 350). With regard to a minimum charge, reference is made to the Commission's remark on page 351.

7. FINANCIAL ADMINISTRATION

(1) PILOTAGE FUND

Following pilotage assignments, the pilots complete their Source Forms (Ex. 1471(j)) in triplicate signed by the Master and the pilot. The senior pilot, i.e., the Port Warden, presents the original to the agent of the ship at Churchill and retains one copy for the Pilotage Authority and one for his records. The agent then pays the senior pilot in cash, or by cheque made out to the pilot, which is deposited in the bank at Churchill to the credit of the Pilotage Fund.

The Pilotage Authority is the signing authority for the fund from which no withdrawals are made until after the close of navigation. After the close of navigation, the pilots report to the Pilotage Authority in Ottawa. The pilots' logbooks, which record all assignments, are checked with the Source Forms and assessed by the Authority, then checked with the Pilotage Fund, and the pilots are paid their share of earnings. The pilot boat fees for the season are also checked against the invoices sent by the National Harbours Board and payment made out of the pilotage fund by cheque.

With regard to the collection of the dues and the remuneration of the pilots, there is a substantial discrepancy. Apart from the question of the illegality of the pooling system, the By-law is incomplete because it does not indicate that the dues are payable to the Pilotage Authority. The dues for services rendered are to be considered a debt due to the Pilotage Authority (sec. 343 C.S.A.) only if they have been made payable to the Pilotage Authority in a by-law passed under the last part of subsec. 329(h) C.S.A. Failing this, they are payable to the pilot who performed the service and they belong to him (Part I, pp. 187 and ff.). The Pilotage Authority has no valid claim and can not force the pilot to pay what he has collected into the Pilotage Fund. If legal proceedings to enforce payment become necessary,

they can not be instituted by the Pilotage Authority or even by the Crown, but only by the pilot who rendered the service. But even the pilot may see his claim rejected because he has no title to the dues under subsec. 5(3) of the Churchill By-law.

(2) PILOTS' COMPLAINT

Captain E. S. Wagner in his evidence stated that the pilots considered the pilotage dues as now charged left much to be desired and, since the same rate was charged for all vessels, the small ones were overcharged and the large ones undercharged. The pilots would like to see a scale of dues based on the size of the vessel, such as tonnage or draught. They had worked out such a scale calculated by a fixed charge per foot of draught which, over a season's operation, would provide approximately double their present pilotage revenue. They felt that they should look after their own interests. They were employed as temporary civil servants, but without the benefits enjoyed by permanent civil servants. In this respect, by letter dated May 13, 1963, signed by G. W. R. Graves, Superintendent of Nautical Regulations, (Ex. 614(A)) the Authority stated in part:

"We sent your submission to the Branch Personnel Office and to the Personnel Organization Division in order that we might have their advice. They have gone into it quite thoroughly and have provided us with the following comments:—

The duties in connection with the Port Warden function are similar to those performed at other locations and the salary paid in this regard is only slightly less, whereas the duties must necessarily be regarded as part-time since you are also employed as pilots during the same period. The effect of the two payments is to bring the monthly remuneration to something in the order of \$1400—\$1500 which compares very favourably with the pilots employed in the Port Weller-Sarnia area and to nearly three times the monthly pay of a classified Port Warden. Consideration has been given to the fact that your employment is seasonal and, therefore, although the total of annual income is somewhat less, it is not out of line bearing in mind the extremely short season and the pay of the seasonal personnel employed as Beachmasters etc. in Northern Operations. No change for the pilotage is contemplated at the present time and it is pointed out that the boat fee is collected as an integral part of the pilotage charge and accrues to the pilotage revenue in cases where the pilot boat is not actually used.²

I am sorry that we are unable to be more encouraging in this regard. However I think you will see that the arguments advanced by personnel services would be hard to refute".

Evidence indicates that the arguments advanced in the above letter are based on comparisons of unequal values. They are, therefore, erroneous and reliable conclusions can not be drawn from them. For example, the location, the annual periods of employment, living and working conditions, duties and responsibilities, and, to some extent, the qualifications of those mentioned, are not comparable.

Captain Slocombe in his evidence describes Beachmasters as Master Mariners who superintend the unloading of cargoes (from ships) by means

² This has been corrected in the 1966 General By-law which provides for a separate boat charge payable only when pilot vessel services are used.

of landing craft on the beaches in the Northern Territories (where there are no harbours or wharves). Their basic qualification is possession of a home-trade Master's certificate. They would, therefore, not be qualified to fulfil the duties of a Port Warden who must possess a foreign-going Master's certificate, although with experience and local knowledge they could act as pilots. Also, only those pilots employed in the Port Weller-Sarnia area who are in possession of foreign-going Master's certificates (if any) would qualify as Port Wardens³ (Ex. 1471 (1)).

The letter from the Superintendent of Nautical Regulations also stated that, since the boat fee is collected as an integral part of the pilotage charge, it accrues to the pilotage revenue in cases when the pilot boat is not used. However, this does not occur. The evidence, supported by the annual financial reports, shows that the pilot boat is used on all pilotage assignments inwards and outwards and the boat fee is deducted.

A comparative statement of the average monthly earnings of those mentioned above for the years 1962 and 1965, taken from the annual reports, is as follows:

SEASONAL PERIODS				
		(about 8 mos.)	(about 3 mos.)	(about 3 mos.)
Year	Port Weller-Sarnia Pilots	Beachmasters**	Combined Earnings Churchill —Pilots	
1962.....	\$1,380	\$632	P.W.	\$1,272
			D.P.W.***	\$1,377
1965.....	\$1,685*	\$681	P.W.	\$1,449
			D.P.W.***	\$1,620

*Basic salary \$1,485 per month. However, in 1965 and for the first time a bonus was paid to the pilots in the Port Weller-Sarnia area at the rate of \$200 per month.

**Beachmaster's monthly salary based on \$5,600 per annum in 1962 and \$6,000 in 1965, plus \$100 per month northern allowance, and a flat rate of \$65 per month for overtime in each year.

***Higher average monthly earnings by the Deputy Port Warden is due to his shorter period at Churchill. Whereas, he departed shortly after the close of navigation, the Port Warden remained to complete his books, etc. During this period there would be no pilotage earnings to supplement his salary.

Following the 1963 season of operations, the pilots, Captain Mundy and Captain Wagner, called at the Commission's office and left a copy of a further memorandum dated October 18, 1963, which they had submitted by

³ By a policy decision of the Department of Transport, Port Wardens and other technical officers are classified as Nautical Services Officers, 1-3. Their basic qualification is possession of a foreign-going Master's certificate. However, new entries for this position must pass a pre-entry examination on several nautical subjects as set out in the Classification Guide, approved by the Civil Service Commission, April, 1966 (Ex. 1471(n)).

hand to the Pilotage Authority. This memorandum (Ex. 614(A)) emphasized the fact that due to the installation of lighted buoys and range lights, pilotage was now conducted on a twenty-four hour basis (thus saving the shipowners valuable time) and that their hours of duty had increased to this extent. They described their duties, explained their contentions and proposed remedial measures.

They requested that consideration be given to Churchill's remote location, its great distance from dry dock facilities and major repair yards, and its difficulties as compared with other ports, as well as their own job security, including an absence of superannuation and a lack of incentive to work in Northern Canada. Their main request was for an increase in pilotage tariffs, whereby they would receive an equitable remuneration, more in keeping with that enjoyed by their fellow pilots in other parts of the country. In this respect, they again proposed that pilotage tariffs be changed and based on net or gross tonnage.

Captain Slocombe was asked what steps had been taken by the Department of Transport with respect to the pilots' submissions. In his evidence, he replied that they had been considered and the pilots told that the Department did not think they had anything to complain of.

Chapter D

RECOMMENDATIONS

SPECIFIC RECOMMENDATIONS AFFECTING THE CHURCHILL PILOTAGE DISTRICT

RECOMMENDATION No. 1

The Pilotage District of Churchill to Remain a Separate Pilotage District

Churchill is one of the few ports where the pilotage service did not exist prior to Crown intervention and would not exist without it. There are no local traders from whom to recruit pilots and the relatively small number of ships calling at Churchill during the short navigation season are unlikely to provide pilotage earnings that in themselves would attract the expert mariners the port requires as pilots.

An efficient, reliable pilotage service must be provided at Churchill for a number of reasons: it is an ocean port with special navigational problems; the consequences of a marine casualty are seriously aggravated by its remoteness from repair facilities; maximum use must be made of its facilities because of its short season of navigation; since it is the only seaport in Hudson Bay that will accommodate ocean-going vessels, it is of particular regional and national importance.

The provision of such a service requires that, in the circumstances, not only do the pilots' qualification have to be controlled by a competent Pilotage Authority (Gen. Rec. 12, Part I, pp. 491 and ff.) but that the direction and management of the whole service must be assumed by the Pilotage Authority (Gen. Rec. 14, Part I, pp. 495 and ff.). The remoteness of Churchill makes it impossible for such functions to be adequately exercised by the Pilotage Authority of any other Pilotage District and necessitates that it continue as a separate Pilotage District with its own Pilotage Authority (Gen. Rec. 8, Part I, p. 476).

The small number of pilots and the limited extent of pilotage operations make it a special case where the appointment of a one-man Pilotage Authority would appear to be indicated (Gen. Rec. 18, Part I, pp. 510 and ff.). It is considered that this function should be entrusted to a local

officer, either of a department of Government or of the National Harbours Board, whose other functions would allow him sufficient time to discharge his pilotage duties and responsibilities efficiently.

RECOMMENDATION NO. 2

**Pilotage at Churchill to be Classified as
an Essential Public Service**

The national importance of Churchill and its short navigation season make it of public interest that maximum use be made of its facilities when it is open to ocean-going vessels. Hence, all reasonable steps should be taken to enhance its seasonal activities by facilitating ships' movements as much as possible consonant with safety. This aim can be achieved only through an efficient, reliable pilotage service. (Vide also Comments on p. 412). The Port Warden's Annual Reports (Ex. 3) indicate that vessels often have to wait at anchor for as long as several days because the limited harbour facilities are occupied by other ships. The report also shows that even with the pilots' assistance it is not always possible to bring ships into harbour and berth them under very adverse weather conditions. This situation would be much aggravated and the efficiency of the port would be seriously affected if a fully efficient pilotage service were not provided.

Therefore, it is considered that the pilotage service at Churchill should be classified as an essential public service (Gen. Rec. 17, Part I, p. 509) with the consequences such classification entails, such as compulsory pilotage (Gen. Rec. 22, Part I, pp. 532 and ff.), participation, if necessary, in the Equalization Trust Fund (Gen. Rec. 21, Part I, pp. 524 and ff.) and direction and management of the service by the Pilotage Authority (Gen. Rec. 14, Part I, pp. 495 and ff.).

BINDING SECT. OCT 27 1969

